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OBSERVATIONS
ON THE
HYDRARGYRIA;
OR THAT
VESICULAR DISEASE
ARISING FROM THE
EXHIBITION OF MERCURY.

BY
GEORGE ALLEY, M.D. M.R.I.A.
FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

Sæpe vero etiam nova incidere genera morborum, in quibus nihil adhuc usus ostenderit; et ideo
necessarium sit animadvertere unde ea coeperint, sine quo nemo mortalium reperire possit cur hoc
quam illo potitus utatur.

CELS. DE RE MED. PRÆF.

LONDON:
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1810.

TO
HIS GRACE CHARLES,
DUKE OF RICHMOND AND LENOX,

LORD LIEUTENANT GENERAL, AND GENERAL GOVERNOR OF IRELAND,

&c. &c. &c.

MY LORD,

THE extension of your Grace's patronage to pages, whose subject is a disease of considerable interest, and hitherto imperfectly understood, has added another to the many instances already existing of that desire to promote the public welfare, which has ever been the peculiar distinction of your Grace's character. And I shall feel no small degree

DEDICATION.

of satisfaction, if the humble labours, which
have experienced so great an honour, be found
conducive to so important an object.

I have the honour to be,

MY LORD,

Your Grace's most obedient Servant,

GEORGE ALLEY.

The Reader is requested to make the following Corrections, previous to perusal.

- Title-page, last line of the motto, *for potius, read potius.*
- Preface, page iii. line 21, *dele s in M'Mullins.*
- p. xiii. line 25, *for Συζήματα, read Εξήματα.*
- p. xvi. line 1. *for alter, read aliter.*
- p. xix. line 10, *dele s in publications.*
- Page 30, last line of text, *for acid, read acrid.*
- 31, line 8, *for M'Mullen, read M'Mullin.*
- 36, line 18, *for " of the brain," read " to the brain."*
- 41, last line, *after the, add mode.*
- 42, line 11, *for into that, read into the.*
- 65, line 9, *for structure, read stricture.*
- 79, line 18, *for 10, read 7.*
- 95, line 4, *for 3 gr. read 3 gr.*

P R E F A C E.

MORE than five years have now elapsed since I ventured, with the advice and approbation of some intelligent friends, to publish a little tract on the subject of the following observations. The motives which actuated me to that publication originated neither in presumption nor arrogance. An humble hope that through it some might be made acquainted with a disease, whose peculiar nature, it was of consequence, should be well understood, and others directed to its elucidation, was my sole inducement to appear before the Public, and was the only apology I had to offer for a production so evidently immature and imperfect. The unworthiness of the boon may, therefore, be pardoned on account of the intention of the donor; especially as he has endeavoured to compensate the deficiencies of the former gift by the offer of another somewhat, he hopes, more worthy of acceptance.

The knowledge of every effect produced by the influence of mercury on the human system is, at the present day, essentially necessary and important. Notwithstanding the many substitutes recommended by liberality and science, and the yet more numerous nostrums with which empirics have deluded and destroyed thousands, mercury is still the only remedy deserving confidence for the perfect removal of the venereal disease. The Typhus Icteroides, commonly termed the Yellow Fever, that scourge of our armies in the warmer climates, acknowledges also no more certain preventative, or remedy, than mercury ; while many other disorders could be enumerated, in which that mineral is alone resorted to with success. And, surely, when a very large proportion of the diseases with which mankind are afflicted can be alleviated but by a single remedy, and when that remedy may itself produce consequences more deplorable even than the maladies it is intended to relieve, the public could not too soon have been made acquainted with those effects, nor too frequently excited to a consideration of them.

Such were the impressions which emboldened me to publish the little tract already alluded to, and the same impressions have induced me to extend that tract into this more perfect volume. The expectations which urged the publication of my former essay

have been partly, if not entirely, realized ; for, however doubtful the circumstance, that information has been diffused through the medium of my humble labours, it is certain that men of talent and observation have since proceeded to investigate the subject.

About three months after the appearance of my work, Dr. Moriarty published his "Description of the Mercurial Lepra," for which term, as well as for other useful hints, he acknowledges himself indebted to Dr. Whitley Stokes, the present learned Professor of the Practice of Medicine in the University of Dublin. In January 1805, Dr. Thomas Spens, of Edinburgh, inserted in the first number of the Edinburgh Medical and Surgical Journal, a valuable history of three cases of the disease, that occurred at the Royal Infirmary of that city, to which he is physician, and denominated the complaint "Erythema Mereuriale." Another paper on the subject appeared in the same periodical work, in January 1806, from the ingenious pen of Dr. John M'Mullins ; and his essay I understand to be a translation of his inaugural dissertation, published at Edinburgh, in May 1805. Dr. M'M. also adopts the title "Erythema," and informs us that under that generic distinction the disease has been noticed for some years in the lectures of Professor Gregory. Lastly, a concise, but accurate, descrip-

tion of the affection has been given by Mr. John Pearson, in the second edition of his "**Observations on the Effects of various Articles of the Materia Medica in the Cure of the Lues Venerea.**" Mr. Pearson terms the disease "**Eczema Mercuriale,**" or, "**rash from the use of mercury.**"

Those, I apprehend, to be all the papers on this subject which have appeared since the publication of my essay; and the reader will readily perceive my obligations to the three last, but particularly to Dr. Spens's history, in the completion of the present volume. The only antecedent allusions to the complaint, which I have been able to discover, are contained in the *Medicinæ Septentrionalis Collatitia* of Bonetus*, the *Memoirs of the Academy of Sciences of Paris*†, and in Mr. Benjamin Bell's *Treatise on*

* P. 386. vol. ii. Ed. Genev.

† See *Philosophical Memoirs of the Royal Academy of Sciences of Paris*, anno 1719, in which may be found a paper by M. Jussiau, on the working of the quicksilver mines, at Almaden in Spain. The author mentions the appearance of pustules over the whole body, as a consequence of a contact with the mineral, even in its metallic state, together with tumours of the parotids, aphthæ, and salivations.

"Nec dispari ferè methodo herpetibus, lichenibus, impetigini, ceterisque cutis medendum est, si post usum Hydrargyroseos permaneant, aut, quod frequentius est, si per intervalla renovantur." Astruc, in the preceding sentence, may possibly allude to the mercurial affection here described: but it is evident that he was entirely ignorant of the circumstance, that mercury was the cause of those diseases, since he does not advise a discontinuance of

the Gonorrhœa Virulenta and Lues Venerea *. It must be observed, however, that the passages referring to this subject in the works just mentioned are so brief, superficial, and unsatisfactory, as to afford no assistance whatever in arranging an accurate history of so interesting and peculiar a disease. To this cause alone my omitting to acknowledge the priority of observation, which apparently belongs to those authors, should be attributed, and by no means to any wish of arrogating to myself the honour of such a circumstance.

By this concession, however, I must not be understood as attaching the smallest degree of credit to an assertion, which every impartial person will perceive to be as devoid of probability as it is deficient in candour—that the notoriety of the complaint in the London hospitals was the probable cause of its not being sooner described by any of the practitioners of that city! Such an attempt to demonstrate the accuracy of observation, for which the faculty of London were already distinguished, had better never have been made; since the establishment of the fact, in this instance, must necessarily tend, in no small

its use, when they occurred *per intervalla*; and since, among other external remedies, he enumerates the white and red precipitates of mercury. De Morb. Vener. p. 398.

* P. 227. vol. ii.

degree, to their inculcation. The periodical works, with which London abounds, daily contain matter of unquestionably less importance than this complaint; and that a non-descript disease, whose treatment involves even life itself, should remain for many years without elucidation, only because no person having access to the hospitals of the metropolis required information on the subject, must convey to every unbiassed mind the utmost surprise! Were there no other practitioners who deserved to be informed, and whose opportunities could not have enabled them to acquire an accurate knowledge of the disease? Surprise, however, is not the only feeling which silence, in such a case, must excite; for regret is necessarily intermingled with the idea, that from information having been withheld which might have been afforded, mischief has arisen that could have been prevented.

When this disease first attracted the attention of the Dublin practitioners, several considered it an affection entirely confined to venereal hospitals. This opinion a little experience soon invalidated; and, at length, even the most sceptical no longer hesitated to acknowledge its occurrence in private practice, and the too frequent confusion of it with other eruptive diseases. Of this general ignorance of the nature of the complaint I was afforded a very deci-

sive proof in a letter, which I had the honour to receive from the late Dr. John Purcell, of Dublin, a short time after the publication of my essay*. “I remember,” that most respected and worthy character observes, “about fifteen or sixteen years since, having been called to a consultation with two surgeons, at that time of considerable eminence in this city (Dublin), upon a case, the circumstances of which are yet fresh in my memory. The patient was a gentleman who had been subjected to a course of mercurial frictions for recent venereal symptoms, which gave way on the supervention of an eruptive fever of a very malignant nature. When I saw him, he was more like a mass of corruption, than a human being: yet, strange to tell, the plan recommended by both surgeons, even under those circumstances, was an enlarged exhibition of mercury! One pronounced the disease to be Syphilis combined with Scurvy; while the other asserted it was Lues, connected with Scrophula. For my own part, I candidly confess I knew not what disease it was: but every symptom convinced me that mercury could do no good, and might probably injure. I, therefore, proposed relinquishing altogether, for a while, mercurial medicines, and substituting those remedies

* Dated June 22, 1804.

which were known to resist putrefaction. My advice was adopted. Wine, bark, and a nourishing diet, supplied the place of mercurials: the patient, contrary to the opinion of us all, slowly recovered under this treatment; and he is this day a living instance of one of the most fortunate *guesses* I have ever made in a very long, and, I believe I may also add, a very extensive practice”*.

* It is scarcely necessary, by any eulogium of mine, to preserve in the inhabitants of Dublin a remembrance of the talents and virtues of the truly amiable and accomplished physician, to whom I have above alluded. To live respected by every friend of humanity and of science; to die regretted by all, to whom the fame of professional acquirements, and of universal benevolence, can extend, is a lot as enviable as it is uncommon. Such a man needs no panegyrist: but the circumstance above related deserves to be recorded, on account of the great degree of candour it evinces—a virtue which, though all must admire, few are disposed to imitate. If any thing can give additional lustre to a character so brilliant, it will be found in that generous and disinterested liberality of sentiment, for which he was so eminently distinguished. To his encouraging approbation, in particular, may be ascribed the completion of the present volume; and, however humble the merits of the performance, those of the patron will readily be acknowledged.

The lectures on Anatomy and Physiology, which he gave, at one period, at the University of Dublin, are yet strong in the recollection of many; for what intelligent auditor of his eloquence can have forgotten the accuracy and plenitude of their matter, or the classical elegance of the manner in which they were delivered? It must be a circumstance of no small regret, that he has left behind him no monument of his talent to perpetuate his memory. It will live, however, in the feeble strains of panegyric, in which all, who make public mention of his name, cannot fail to express their opinions of his character; and that character cannot be better delineated

The merit which attaches to discoveries in medicine is claimed with such avidity by many, that it often becomes difficult to determine to whom the honour should properly belong. It is impossible, and probably of little importance, to say positively to whom, in this instance, such merit may attach; since there is nothing but the bare assertion of individuals to determine the question, and since the community is ever more indebted to the person who imparts, than to him who conceals his knowledge. In Dublin, the discovery of the true nature of this affection is generally attributed to the senior surgeons of the Lock Hospital of that city*: though, even there, the justice of that decision is disputed. Professor Stokes, whose veracity is as undoubted as his information is extensive, has informed me by letter†,

than in the words of an accomplished friend, who with the ability to perceive, united the candour to acknowledge his merits. "His wish," observes that friend, "was the promotion of the public welfare, by the extension and liberal cultivation of a science which he most perfectly understood; and, before he resigned a life passed in the exercise of every virtue, he had the delightful satisfaction of knowing that, in every sense, he was considered by the faculty of Dublin as the *father* of the profession." The best of his successors need not be offended with the advice, "Go thou, and do likewise." G. A.

* James Henthorn, and Francis M'Evoy, Esquires. The latter of those respectable characters has since paid the debt to nature, and has been succeeded in his arduous office by Dr. William Hartigan, professor of Anatomy and Surgery in the University of Dublin.

† Dated 21st October, 1803.

that the late Dr. George Burrowes, one of the physicians to the House of Industry in Dublin, was the first who discovered that mercury was the cause of the disease; and adds that, as he (Dr. S.) had annually lectured on the complaint since the year 1798, he thinks he may consider himself as the person who first brought the disease before the public. I, therefore, state his claims: but it is incumbent on me to add that, long before the period mentioned by Dr. S., the present Dr. James Gregory, had spoken of the complaint in his lectures on the practice of physic, at the University of Edinburgh, while it had been still more particularly noticed in those of the late Mr. William Dease, the revered and respected professor of the practice of surgery in the College of Surgeons in Ireland.

It may here be proper to advert to the classification of the disease, as the consideration of that circumstance will explain my reasons for rejecting the various appellations hitherto proposed, and substituting one which has no reference to any generic distinctions as yet admitted into systems of nosology. The affection, which I denominate "Hydrargyria," is, with some few exceptions, in the strictest sense vesicular, and at all times to be considered as an acute disease. To such a complaint, the term "Erythema," or "Lepra," must therefore be wholly

inapplicable : the former being never a vesicular disease, while the latter is always a chronic affection. Similar cutaneous diseases, it is true, are not unfrequently the consequences of the application of other irritants besides mercury : and these, though varying somewhat from each other, (from a difference perhaps in the nature of the irritants which excite them) are, when accompanied with vesicles, referable to the same head, and may be denominated with propriety by the same generic appellation.

But however proper the arrangement of such cutaneous affections, under the order of "Vesiculæ," may be to "Eczema," as a generic name, there are many objections; and, though admitted by Dr. Willan into his improved system of cutaneous nosology, that term, like some others in his nomenclature, has been adopted from necessity, and should by no means be considered as having his approval. This may be collected from the parts of that valuable work already published. Speaking of the deficiencies observable in the works of the Greek and Arabic authors, he justly complains that "they give us no regular history of proper exanthematous diseases, or rashes, but are satisfied with a loose comparison of their appearances to the effects produced upon the skin by nettles, and other stinging plants, or by the bites of fleas, gnats, bugs, &c. applying

several terms to denote them as Exanthismata, Blastemata, Eczesmata, &c. but without any distinctive characters*". In another place we find the same learned author to object, though for a different reason, to the term "Scarlatina," a denomination first applied by British writers to that disease; yet he observes, "that however offensive the term may be to a classical ear, it cannot well be displaced; having found admission into all the systems of nosology;" and he indulges the hope, that another age will correct and refine the language now used on subjects untouched by the fathers of physic †.

General acceptance cannot be adduced as an argument to favour the introduction of the term "Eczema" into modern systems of nosology. The disease it is meant to express has been noticed by few of the old Greek writers; and, while the denomination itself has been almost wholly excluded from modern medical history, the affection has been either referred to or confounded with other eruptive diseases bearing some similarity in appearance, but whose symptoms have been more clearly and comprehensively detailed ‡.

* Willan's Description and Treatment of Cutaneous Diseases. Int. p. iv.

† Idem, p. 253.

‡ Sauvages, Sennertus, Gorraeus, and a few more, have retained the term "Eczema," but rather as one of the synonymes of Hydroa, a complaint

The few Greek physicians who have treated of Eczema, have been more particular in enumerating remedies, than in describing the symptoms and

noticed by Hippocrates and others, and probably the same with what we term "Miliaria." Mercurialis contends, that *ιδρώα* (Sudamina) is a proper term for the eruption it is meant to express: "tanquam sint soboles materiæ sudorificæ." (Prel. Patav.) Foesius renders *ιδρώα*, "Papulæ sudoris," which Sennertus considers the proper Roman term for "*εκζεµα*." And Foesius and Mercurialis, as well as Gorter, Hollerius, Leone ab Erlsfeldt, and other learned commentators on Hippocrates, agree in supposing that the disease is occasioned by the detention of the perspirable matter under the cuticle, which putrifying, becomes the cause of irritation. Thus also Ettmuller, "Sudamina milii granis similia sunt. Causa proxima est serum plus minus acre." Schmitz, however, makes a determination of bile to the surface the cause of the disease. "Sunt papulæ sudorum in collo, pectore, brachiis, &c. Oriuntur a sudore bilioso cutem exasperante." Pract. Med. p. 202. Compare Riverius, Præcos Med. Lib. ii. C. X.

"Hydroa, sudamen; sudamina Sennerti; Eczemata et *ιδρώα* Græcis; Asef et Alhasef Avicennæ; Gall. Echauboulure vel Echaubouillure; Occitanis Cambroul; Ebullition de sang. B."

"Exanthemata illa dorsum, pectus, brachia, crura sæpius afficiunt, numerosissime consita, rubra, pungentia, acriter dolentia. Juvenes et calidos potissimum adoriuntur æstivo tempore." Sauvages Nosol.

"Eczemata sunt pustulæ ardentes, et fervidæ, dolorem cientes, citra saniam; ingens enim fervor omnem materiam absumet. Dicuntur et Eczesmata." Gorræi Def. Med.

"Les Grecs ont donné à cette maladie les noms d'*Εκθύματα*, d'*Εξανθήματα*, d'*Εκζεύματα*, d'*Εκβρασματα*, qui respondent aux mots François d'*eruption*, d'*efflorescence*, d'*ebullition*. Pour les Latins, ils n'ont donné à ces boutons, que le nom vague de *papulæ*." Traité des Tumeurs et des Ulceres. Paris 1759.

Nonnullæ vero febris expertes sub latissimo et vernaculo nomine "*echa-boulures*," quæ sæpius a calore aeris et insolatione suboriuntur, sed etiam

appearances of the disease. None of them seem to have considered it in any degree dangerous, as their prescriptions are merely directed to the alleviation of the eruption and consequent desquamation. Galen, Ætius, and Oribasius, are extremely brief and unsatisfactory in their descriptions. Paulus has nothing on the subject; and Actuarius is equally deficient. Nicolaus Myrepsus, another writer of the barbarous and superstitious age in which the preceding author lived, (1155. P. C.) mentions the disease, Eczema: but, as his works relate entirely to pharmacy, they contain nothing more than one or two nostrums for the cure of the eruption*.

varias alias causas agnoscunt. Si ab æstuante sanguine concitetur, compar eruptio, faciem, pectus et brachia præsertim obsidens, vix a Sudaminibus discrepans: apud nostrates *Ebullition* audit; *febre*, quam nescio qua ratione ductus morbillosam vocitavit SYDENHAMUS, plerumque stipatur hic levissimus affectus cutaneus; qua cessantè, evanescit. Lieutaud. Synopsis Univ. Pr. Med. Tom I. p. 431. Compare Sydenham's Observations on the Measles of the year 1674. p. 144. Ed. Gen.

* Actuarius makes Perizema the same with the Epinyctis, a disease for which Oribasius, Ætius, and Myrepsus, have specified remedies. Paulus also gives a short description of the Epinyctis, and advises those liable to it to avoid acid, acrid, and saline substances; also fomentations, bathing, and the rays of the sun. Epinyctis is, probably, but another term for Urticaria, or for a certain species of Lichen, which last is by no means sufficiently distinguished from Eczema, or Hidroa. "The term 'Hidroa,' says Dr. Willan (Cut. Dis. p. 69) "is usually applied by the Greek physicians to an eruption of miliary pustules, they may on some occasions employ it to express the summer rash, or prickly heat, described by Dr. Cleghorn: but

Such is the substance of the information afforded by the Greek writers on the affection termed by them "Eczema," excepting indeed their long lists of remedies, few of which can be admitted into modern practice.

The Latin authors are yet more ambiguous in their observations on the subject. Celsus, who has left some accurate descriptions of cutaneous diseases, has not noticed it, unless the following remarks on Pustulæ be made to refer to that complaint: "At pustulæ maxime vernis temporibus oriuntur. Earum plura genera sunt. Nam modo circa totum corpus, partemve, aspredo quædam fit, similis iis pustulis, quæ ex urtica, vel ex sudore nascuntur: "Εξανθήματα" Græci vocant; eaque modo rubent, modo colorem cutis non excedunt. Nonnunquam plures similes varis oriuntur, nonnunquam majores pustulæ, lividæ, aut pallidæ, aut nigræ, aut

I think the more appropriate terms used by them are Lichen, Eczema, or Eczesma. Thus even Dr. W. seems to make Lichen and Eczema, terms for the same affection.

De Haen (Rat. Med. Tom. iv. Cap. iii.) exclaims against the confounding of Hidroa with Miliaria; but, as far as I can judge, does not himself make any distinction between them. The appearance of that order of Dr. Willan's Treatise on Cutaneous Diseases, which comprizes the vesicular disorders, may be expected to remove many of the difficulties at present existing respecting the diagnosis and classification of certain complaints of the skin.

alter naturali colore mutato, subestque his humor. Ubi hæ ruptæ sunt, infra quasi exulcerata caro apparet: “φλυκταίναι” Græce nominantur. Fiunt vel ex frigore, vel ex igne, vel ex medicamentis*.

The Romans, however, it would appear, had other terms for the disease, as “Sudamina †”,—“papulæ sudoris ‡”,—“papulæ effervescentes §”, &c. while the Arabic authors have probably included it, with some affections, under the head “Essera ||”, and the Indians have confounded it under the title “Courap,” with “Herpes ¶.”

* De re Med. Lib. v. Oribasius and Actuarius have remedies for what the Greeks termed φλυκταίναι (vesiculæ,) but have left no description of any of the genera included under that order. Eight were at first put down by Dr. Willan on the cover of his work on Cutaneous Diseases. The three first of those that learned Nosologist afterwards took to constitute another order, which he calls “Bullæ,” the blisters in them being of a larger size than in the remaining five, which he leaves under the former head “Vesiculæ.”

† Sennerti Pr. Med. Cap. xxiv. de tumoribus.

‡ Plinii Hist. Nat. Lib. xxiii. Cap. iv.

§ Scribonii Largi de Comp. Med. L. Cap. cxxliii.

|| “Essera est pustula parva, (lata) sicut vesicæ, et aliquantulum tendens ad rubidinem, et pruritum faciens, et angustiam: eveniens subito, secundum plurimum. Et accidat quandoque ut currat ab eo humiditas.” Avicennæ Lib. iv. Fen. 3. Compare Serapion, Brexiar. Lib. v. Cap. 5. Alsaḥaravius Pr. Tr. xxxi. Cap. viii. and Haly Abbas, Theorice, Lib. viii.

¶ Bontius de Med. Ind. p. 91; Ed. Lugd. Bontius speaks of a species of the Courap which arises, as he thinks, from a venereal cause; and terminates, if neglected, in the Lepra of the Arabians, or in Elephantiasis itself.

From this brief notice of Eczema and its synoymes, I think myself justified in the following conclusions, and consequently in the rejection of that term as a denomination for the disease, which I propose to call "Hydrargyria:" 1. Eczema has been confounded by the Greek writers with Hydroa, and even with Lichen, which are very different affections from it both in their origin and progress: 2. From the etymology of the word "Eczema," or "Eczesma," its signification must be too general to express any particular affection*.

The term "Hydrargyria" itself, is not without its imperfections; and as a nosologist, perhaps, I should otherwise have denominated the disease it is intended to express: but, where disputes have arisen, or are liable to occur, respecting the classification of a disease, it must be deemed prudent,

*. "Pustules arise over the whole body, inducing pain without collection of matter. These the Greeks vulgarly term Eczemata from the *burning heat*." *Ætiii Tetrab. iv. Serm. I. Cap. lxiii.*

Eczemata are thus defined in Blancard's Lexicon:

"Pustulæ rubicundæ, fervidæ, et flammeæ: quidam Hydroa pro Eczemata, sed male, sumunt, ab *Εκζέω* effervesco. Gall. ampoule ardente, Ang. Burning, or red pustules."

"Vel potius causa in fuliginosis siccioribus effluviis, cum paucâ humiditate junctis, consistit. Apud Disascoridem legitur *εκζεομα*, et quidem rectius quam *εκζωμα*; ita etiam *εκζεσις* effervescentiam significat." *Castelli Lexicon.*

at least, to adopt some denomination, which, without reference to any particular genus, shall imply in itself the nature of the disorder. To this the term "Hydrargyria" appears to be adequate. It evinces the complaint to be a consequence of the exhibition of mercury; and, being confined to this particular affection, it cannot be taken to express any other effect of the mineral. On those grounds only do I undertake to defend its adoption; yet it is gratifying to observe, that, in the liberty I have assumed of naming a disease from its exciting cause, I am justified by authority, no less respectable than the celebrated Linnæus*.

I cannot dismiss this work to the notice of the public without directing a few observations to the attention of those readers, in particular, who are not strictly professional, if any such be disposed to consider it worthy their perusal. Had any remedy of nearly equal efficacy to mercury been hitherto discovered, whose exhibition was unattended with the painful and melancholy consequences which sometimes follow the use of that mineral, such effects as the disease here described might justly deter from the employment of that most powerful, and, in ignorant hands, most unsafe medicine. But,

* Linnæus called Raphania from Raphanus.

as already observed, mercury is the only remedy on which, according to the present state of our knowledge, any reliance should be placed for the perfect removal of many disorders. Its virtues have long been ascertained and approved. It deserves, therefore, that its inconveniencies should be studied, removed, and, if possible, prevented. And, perhaps, more real benefit is conferred upon mankind by successful efforts of this nature, than by the publications of volumes written in its abuse, or in praise of substitutes, which may amuse and deceive for the moment, but which at length are consigned to the oblivion they merit.

Another consideration seems the natural consequence of a perusal of these pages, and may not be the most inconsiderable advantage arising from their publication. Many, even of those who admit the danger attending the unskilful administration of mercury, in practice, at least, appear to believe themselves competent to its exhibition; and, though every day afford deplorable instances of its injurious effects, (when employed by that herd of empirics, who, to the disgrace of the legislature, are suffered at this enlightened period, to infest these countries,) are yet vain enough to think themselves qualified, by a cursory perusal of some frivolous and superficial compendium, to dispense it with impunity. To such

this volume will be a warning too serious to be neglected. It may tend to impress upon their minds the belief of facts, which the admonitions of others have been insufficient to enforce,—that, even in the hands of those whose time and studies have been devoted to the subject, mercury sometimes becomes a remedy of difficult management: while, in the prescription of incautious and presuming ignorance, it ceases altogether to be safe, and is too frequently productive of calamities, which terminate but with life.

These positions every day's experience so amply verifies, that Ramazzini seems justified, from contemplating the blessings it confers, and the miseries it inflicts, in comparing the powers of mercury to those of the Deity distinguished by that appellation, as painted with so much elegance by the poet of Mantua :

Animas ille evocat orco
 Pallentes, alias sub tristia Tartara mittit,
 Dat somnos, adimitq. et, lumina morte resignat.

OBSERVATIONS

ON THE

HYDRARGYRIA.

OBSERVATIONS, &c.

THE HYDRARGYRIA is characterized by an eruption which is very variable in its appearance. In some instances, there is merely a light rose-coloured efflorescence; in others, the skin presents an almost uniformly dark red tint, approaching, in a few cases, to purple: but, for the most part, the eruption appears in semi-distinct spots of a dusky reddish hue, which, diffusing themselves over the entire surface, leave but few interstices of the natural colour.

These varieties in the appearance of the eruption are usually accompanied with corresponding symptoms indicative of the mildness or severity of the disease, and justify the division of it into I. Hydrargyria mitis, vel sine febre: II. Hydrargyria simplex febrilis: III. Hydrargyria maligna.

I. Hydrargyria mitis. This species has, at a first view, nothing to characterize it further than the light rose-coloured efflorescence already mentioned. An attentive observer, however, by holding the affected parts between him and the light, and keeping his eye on a level with them, may perceive the surface to be studded over with innumerable, minute, and transparent vesicles: but to the naked eye the vesicular appearance is sometimes with difficulty perceptible. As the eruption strikes out, the surface is affected with a prickling heat and itching; and in some cases, for a few

hours, there is slight headache and nausea. My friend, Mr. Crampton, assistant surgeon to the Lock Hospital, Dublin, in describing the efflorescence in this species, remarks: "There is an eruption of true miliary vesicles, neither preceded by nor accompanied with any sensible constitutional indisposition. The appearance of the vesicles is announced by a sense of heat, and smarting on the surface of the skin: but the affection is chiefly confined to the upper and inner parts of the thighs, the scrotum, groins, and lower part of the abdomen. I have seen it, however, in one instance, extend over the entire surface of the body: but, even in that case, there was no apparent constitutional affection." Sometimes the smarting itchiness, which attends the striking out of the eruption, is not continual. In two cases this distressing sensation came on at intervals: yet, when present, was so severe as to occasion a flushing of the countenance, and evident acceleration of the pulse.

The efflorescence, though not close at first, is gradually diffused over the whole surface of the parts affected: so that they, and sometimes the entire body, present one uniform suffusion of tint. In this species, however, the eruption is usually confined to particular parts: but, if the use of mercury be continued after its appearance, it does not long remain local. The colour of the eruption is here sometimes as dark as that which characterizes the second species; and, in such cases, the spots are, for the most part, very minute, and continue pretty distinct, unless the exhibition of mercury be persisted in after their appearance. In this, as in the other forms, the colour of the eruption recedes, when pressure is applied, and suddenly returns, when the pressure is removed, and by the finger an inequality of surface may readily be detected *.

* The colour of the skin has, in some cases, been so little changed, that no eruption seemed to precede desquamation. In such cases, however, there was much itching of the skin, and the surface was rough before the cuticle had begun to exfoliate.

Sometimes the efflorescence fades away without any desquamation of the cuticle: but, after a few days, especially when the vesicular appearance before noticed is very manifest, a slight scurfiness is generally observable over the parts affected with the eruption. In some instances, the skin does not regain its natural colour for a considerable time after the cuticle has begun to separate.

This species soon degenerates into the second, and even into the third, if the use of mercury be incautiously continued after the appearance of the eruption; and, when the disease, in this form, has been removed, a too early recurrence to the mineral has reproduced it in its worst variety.

Beside those cases, in which the application of cold might be supposed to have remotely assisted in the reproduction of the disease, I have seen two instances in which the relapse could not be attributed to a re-exhibition of mercury. Of these, however, it may be proper to remark, that, in one case, the patient was affected with ptyalism, during and after the first attack of the disease; and that considerable soreness of the gums continued, till the eruption a second time made its appearance: while the subject of the other case was confined, through necessity, in a mercurial ward, from the first accession of the disease, and, in the interval between the disappearance and return of the eruption, was, at times, affected with symptoms of fever*. Mr. Pearson does not consider, however, that the recurrence of the disease is at all connected with the renewed use of mercury; and states, that "it has even occurred, where the patient has been sent out of the hospital that he might enjoy the benefit of a pure atmosphere†."

Pl. 1. gives a representation of the eruption, as it appeared, on the second day, in one of the mildest cases which occurred at the Dublin Lock Hospital, during my attendance upon that infirmary.

* Dr. Spens has related a case, in which there was a relapse, and the patient died.

† P. 173.

II. *Hydrargyria simplex-febrilis*. The eruption is here preceded by languor, restlessness, and rigors, is accompanied with much heat and itching of the skin, and is considerably more rough to the touch than the efflorescence in the former species*. In many places distinct spots† are at first observable: but they are soon so crowded together, that the natural colour of the skin is seldom discernible after the third day. While the spots continue distinct, the eruption somewhat resembles that which is characteristic of *Rubeola*: but the spots in the former are larger, nor do they afterwards appear in the annular form, which those in *Rubeola* are observed to assume‡.

Mr. Crampton remarks: "The eruption, which, in this form, is always accompanied with a greater or lesser degree of fever, so closely resembles, for the first two days, that which attends measles, that, I believe, it would be difficult to establish a diagnosis between the diseases, founded on their external characters only. As in measles, it appears in distinct red spots, slightly raised above the surface of the skin. These, usually upon the second day, becoming confluent, form red patches of various sizes and shapes: but, upon the third or fourth day, particularly if the disease be severe, the greater part of the surface of the body becomes of a bright pink colour."

Pl. II. affords a more precise idea, perhaps, than words can do, of the semi-distinct appearance of the eruption in this species,

* It appears from a case, related by Dr. Spens, that catarrhal symptoms have preceded the appearance of the eruption, and were so severe as to interrupt the exhibition of mercury. Spens's Hist. p. 16.

† I have used the term "spots" in preference to *papulæ*, as Dr. Willan has appropriated the latter to a particular order, to which are referred three genera, *Straphulus*, *Lichen*, and *Prurigo*. It may be also observed, that the same accurate nosologist confines the term "*papulæ*" to express those small acuminate elevations of the cuticle with an inflamed base, not containing a fluid, nor tending to suppuration. Cutan. Dis. def. p. xiii.

‡ Idem. Vol. I. p. 218.

before the disease is so far advanced, that the natural colour of the skin is wholly obliterated. The eruption is of a dusky reddish hue; and, unless mercury be used after its appearance, is seldom darker than upon the second day. It usually commences in males about the scrotum, and the inside of the thighs: frequently, however, the backs of the arms and hands, sometimes the back and abdomen are the parts first affected. In general it appears last on the face*. But, in this variety, the eruption is not long confined to any particular part: it gradually spreads over the entire surface of the body. The vesicular appearance noticed in the mild species, is here also sometimes manifest; especially on the first striking out of the eruption; as, from attrition by the clothes, &c. they are very liable to be ruptured†. When upon the decline, the eruption bears a good deal of similarity to the rash in the *Scarlatina anginosa* at a similar period: it always, however, preserves sufficient duskiness of colour to enable an accurate observer to distinguish, without difficulty, the two diseases.

The cuticle separates here in larger pieces than in the former species; and desquamation is usually preceded by soreness of the throat and fauces. This latter symptom is, in this variety, but of short duration, and seems the consequence merely of the separation of the membrane which lines those naturally sensible parts. Desquamation generally commences on the fourth day after the appearance of the eruption: sometimes it does not happen for

* Dr. Duncan, junior, met with a case in private practice, in which the disease commenced with considerable redness and swelling of the face, which were ascribed to irritation from the application of the Ung. Oxid. Hydrarg. rub. to the tarsi. Spens's Hist. p. 18.

† Mr. Pearson observes: "The vesicles which contain a pellucid fluid, are, at their first appearance, so small, that they cannot be easily distinguished from papule without the aid of a convex glass; they are then seen to be distinct, each vesicle surrounded by a circle of redness; and, if they are not ruptured at an early period, they acquire the size of a large pin's head, at which time their contents are opaque and puriform." Obs. p. 169.

some days later; and, the earlier the cuticle exfoliates, the milder, in general, is the disease. The cuticle will often continue to scale from the same parts, almost as soon as generated, and even when, all the other symptoms of the disease have vanished *. “In those later desquamations,” Mr. Pearson has observed, “the cuticle is of a white colour, and separates in farinaceous-like scales, so that the surface of the skin appears as if it were covered with a white powder.” After the cuticle has separated, the parts underneath appear red, as before desquamation. With each successive exfoliation, however, the surface acquires a more natural colour, till at length desquamation ceases altogether. Those repeated separations of the cuticle are chiefly observable in those cases, in which mercury is used after the formation of the disease.

Headache, nausea, whiteness of the tongue, and costiveness succeed to the languor and restlessness before-mentioned. To these supervene a considerable degree of oppression about the præcordia, a hard cough, and difficult respiration. The skin very seldom discovers any tendency to moisture; while the heat of the surface, which is commonly at 102°, and sometimes rises to 106°, of Fahrenheit, is in no disease, perhaps, more steady or permanent. Sometimes, indeed, in this species, after the eruption has spread into continuous patches, a thick and very fetid perspiration takes place on those parts, where there is much attrition of surfaces, as in the axilla, between the nates, on the upper and inner parts of the thighs, &c. †.

* Several authors have noticed similar desquamations of the cuticle in the Scarlatina: De Haen, *Rat. Med. Contin.* l. 71.—Clark, *Obs. on Fevers*, p. 207.—Wilson, *Treatise on Febrile Diseases*, vol. iii. p. 402, &c. &c. but none have observed that, in that disease, the surface underneath continued of a red colour, as in Hydrargyria.

† Dr. Willan observes: “A species of intertrigo takes place occasionally, at an advanced period of the lues venerea, on the upper and inner parts of the thighs, on the scrotum, and between the nates. It is attended with heat, pain, itching, and an acrimonious viscid discharge, which partially excoriates, but which at length forms a

The pulse is full, but not, in general, hard: it varies in frequency from 100 to 130 in the minute. Much thirst prevails; and the patients express an eager desire for acidulated liquids. At the commencement, the urine is high-coloured, and small in quantity: but, towards the close of the fever, it becomes pale, is secreted more copiously, and deposits a lateritious sediment. Sometimes the bowels are griped; and, in one case, a diarrhœa alternated with the eruption.

As the disease proceeds, the febrile symptoms increase, excepting the headache and nausea; which are, in general, only present upon the striking out of the eruption. In one instance, the stomach was very irritable, during the entire period of the disease, rejecting every thing almost as soon as swallowed. Sometimes the fever abates, when the cuticle separates: but it more frequently continues for some days after. The eleventh day has hitherto been observed to be the most generally critical. With regard to the duration of the fever, however, this disease preserves as little uniformity, as in the appearance of the eruption by which it is characterized.

III. Hydrargyria maligna. At the commencement, this species has the same symptoms as that just described: but the following are almost certain indications of the distressing nature of its termination: 1. The sense of burning on the surface is experienced to a very painful degree. 2. The actual heat of the skin becomes intense. 3. The soreness of the throat and fauces is extreme. 4. The colour of the eruption is darker, rising sometimes even to purple; and there is considerable tumefaction of the surface. 5. Vesicles of a larger size than in the former species precede desquamation.

This variety of the disease, as was before remarked, may succeed

smooth whitish incrustation, over all the affected surface. I have thought this appearance referable in some instances to the use of mercury. *Cutan. Dis.* vol. i. p. 481.

to either of the species already described ; and this is too often attributable to the incautious use of mercury after the first appearance of the eruption. Nor is the actual exhibition of the medicine alone productive of such consequences. A patient, affected with the mild variety, was allowed to remain in an hospital ward, in which mercury was employed, but did not resume the use of that mineral in any shape. The disease nevertheless was reproduced in its malignant form ; and the patient died *.

The eruption in this species resembles at first that represented in Pl. II. : but the surface soon assumes a more general suffusion of colour, and is considerably swollen. This is observable in Pl. III., where the tumefaction of the hand is faithfully expressed. The separation of the cuticle, as it takes place in this variety, is also shown ; and the crusts formed by the drying of the discharge, which succeeds to the desquamation, and which discolours the portions of cuticle it serves to attach, are at the same time delineated.

The tumefaction of the surface is accompanied with a most painful burning sensation, as of blistering from fire. This is peculiarly distressing, immediately previous to desquamation, when the actual heat of the body is greatly increased, rising sometimes to 108° of Fahrenheit. About this period also, blisters even of considerable magnitude are formed ; and, when they break, an acrimonious lymph is discharged. The vesicles are so numerous, that the whole of the cuticle desquamates from the surface of the body, which is swollen, as in that species of Roseola attendant on small-pox.

As the disease advances, the exudation from the surface becomes more acid and viscid, and acquires a most offensive odour.

* Independent of this fact, there are many others on record to prove, that certain substances produce their usual effects on the human body through the medium of the lungs ; and authors of the first respectability have attested that those of mercury, in particular, have sometimes been excited through the intervention of those organs alone.

Mr. Pearson does not consider the fetor attendant on the discharge, in this variety, as different from that which arises from the secretions of sebaceous glands in general, when under the influence of disease: but I coincide in opinion with Dr. Spens, that it has a very peculiar and characteristic odour. In one case related by the latter author, the exudation from the axillæ, groins, and perinæum, is reported to have had "a strong fishy smell*." Nor has Dr. M'Mullen omitted to notice the circumstance to which I allude. He observes: "They (the vesicles) discharge a serous, acrimonious fluid, which possesses such a very disagreeable odour as to induce nausea in the patient himself, and those who approach near the bedside. The odour is so peculiar, that it can easily be recognized by any person who has once experienced it†."

The cuticle does not exfoliate here so early as in the former species: desquamation not commencing, in some instances, till eight or ten days after the appearance of the eruption. As the scarf-skin cracks, when it begins to separate, and crusts, as represented in Pl. III., are formed on the surface, the appearance of the unfortunate sufferer becomes disgusting in the extreme, and his situation loathsome even to himself. The cuticle of the face is divided into fissures; and is so swollen, that every trace of feature is obliterated. The eyelids, partaking of the general tumefaction, are often entirely closed; and, when the ichorous discharge extends to those parts, the eyes become distressingly sore. In one case the surface was so irritable, that, when desquamation commenced upon the back, blood, instead of lymph, was discharged.

The cuticle frequently scales off in very large pieces; and from the hand, especially, I have seen it to separate so entire as to resemble a glove. When the scarf-skin is first detached, it is of a dark colour: but, before it is regenerated, a thin incrustation is formed, which separates in yellowish scales. A thinner incrustation

* Spens's Hist. p. 15.

† M'Mullen's Essay, p. 27.

succeeding to each fresh discharge, every successive desquamation discovers a surface still less red, and exposed. At length, the exudation ceasing, the epidermis is renewed: the skin, notwithstanding, often remains rough and scaly for some time after. Sometimes the nails of the fingers and toes separate at the same time with the cuticle of the hands and feet*, but in a few cases not till some time after desquamation. In one instance, related by Mr. Pearson, not only the nails of the fingers and toes separated from their attachment, but others of an irregular and deformed appearance, not unlike the nails of persons afflicted with lepra, succeeded.

Painful tumours have, in three cases, been formed on various parts of the body, which suppurated and healed kindly. A similar termination my friend Mr. Carmichael, surgeon in Dublin, mentions to have occurred to him lately, in private practice: "Large abscesses formed in both axillæ, as the disease was going off; and small ones, or rather boils, upon various parts of his body." It may be proper to observe, that all these cases terminated successfully.

It often happens in this species that, while desquamation is only commencing in some parts, in other places a thin acrid matter exudes. The cuticle also, when regenerated, not unfrequently cracks, and separates again†; and, sometimes, after the disease has disappeared from every other part of the body, one particular place will continue discoloured, and extremely sore. Mr. Carmichael notices this circumstance in the communication above alluded to: "The disorder has disappeared in the usual way from every part, except his hands and the bends of his arms; and these have continued red, extremely sore, and running three weeks, since the disappearance of the disease from the other parts of the body."

* See Willan's Reports of Diseases in London, p. 298.

† These latter desquamations are also sometimes preceded by vesications, and by heat and itching, as at the first attack.

Dr. Spens has also favoured me with the history of a case, in which a similar protraction of local disease occurred. He relates: "I have lately had a case of Hydrargyria under my care in the Infirmary. The patient, a young man, was admitted with universal redness of skin, as if the cuticle had lately fallen off, as was really the case. But, on the lower parts of the belly, and genitals, and the upper and inner parts of the thighs, the redness was greater, the skin swelled, and there was a considerable exudation from those parts, as well as from the hairy scalp, which last was so much enorusted, and so severely affected, as to have the appearance of a bad case of tinea. And, though the disease on the other parts soon yielded, on the head it has been very obstinate."

It is not the cuticle alone which suffers in some cases of this disease. A patient much pitted from the small-pox, laboured under the malignant form of Hydrargyria; and to such a depth had the desquamation extended, that no pits were, upon convalescence, discoverable. Mr. Pearson says, he has known "all the hair of the body, the beard, the hair under the axilla, and on the regio pubis, and the greater part of the eye-brows and hair of the head separate, and leave the parts as smooth as in a state of infancy; but the eye-lashes do not usually fall off," he remarks, "in this disease, although there is generally a redness about the tarsi and inner covering of the eyelids*."

The febrile irritation is in general proportionate to the severity of the external appearances. The symptom which soonest produces distress is the affection of the lungs. In some instances, a great sense of weight and oppression about the præcordia, and difficult respiration constitute the principal distress of those organs: but, in others, a hard, harassing cough, and a fixed pain in

* The circumstances above related render the duration of the complaint uncertain. In some instances, a month or six weeks terminate the disease: but, in others, it is prolonged beyond that period. It is seldom, however, I apprehend, extended beyond three months, unless upon the occurrence of a severe relapse.

the chest are superadded. In one case there was bloody expectoration; and suffocation had nearly ensued from the coagula formed in the trachea. The pulse, in such cases, discovers very considerable hardness, as in pneumonia; and, during the paroxysms of coughing, severe headache is experienced. It is only in this temporary way, however, that the head appears engaged; nor have I ever observed the presence of *delirium ferox* in this disease*.

The soreness of the throat and fauces is very distressing, and continues, in some instances, for many days. There is sometimes hoarseness of the voice; and, in two instances, extensive sloughing of the membrane which lines those parts ensued, and was followed by considerable hæmorrhagy. The tongue is commonly white at first; but, towards the conclusion, becomes parched, and black in the centre. In one case, related by Dr. Spens, it was clean and moist during the whole course of the fever.

As the disease advances, the pulse, in general, loses nothing of its frequency: but it by no means retains the fulness it possessed at the commencement. On the contrary, it becomes weak, and frequently irregular. This alteration in the state of the pulse, and the general circumstances of the patient, about this period, attracted the particular notice of Mr. Crampton. "The primary fever," he remarks, "properly so called, is that, which accompanies the eruption; and which, though frequently severe, is never dangerous. The secondary fever, which appears only when the disease runs on to purulent desquamation, is, probably, the consequence of the absorption of matter from a large and exposed surface, and is dangerous, in proportion to the extent of that surface, and the depth of the desquamation."

* This corresponds with the experience of Mr. Pearson, who observes, that "neither the functions of the stomach, nor of the sensorium commune, are evidently disturbed by this complaint." Nor is the presence of delirium noticed in any of Dr. Spens's cases. This is particularly worthy of remark, as it serves to place the disease at a distance from Erysipelas.

This division of the fever, in the malignant species, will appear strictly just upon a consideration of the phenomena observable about this period of the disease. However copious the exudation from the surface, the debility and emaciation, which take place, are yet too great to be referred to such a cause alone. The nature of the fever undergoes, beside, a very decisive alteration: it loses every inflammatory feature at first discoverable, and assumes a strong resemblance to the hectic arising from the re-absorption of putrid matter. Rigors, amounting, in some instances, to severe tremors of the limbs *, with a great degree of faintness, are also experienced; and frequently a diarrhoea supervenes, and constitutes the most formidable symptom of the disease. In one case the patient was much convulsed; and, in another, the urine and fæces were passed involuntarily.

“ It is curious to observe,” says Dr. M‘Mullin, “ that the appetite for food, in most cases, remains unimpaired, and sometimes is even voracious. This circumstance was particularly remarkable in a patient who laboured under the disease, in its worst form, for the space of three months, in the Royal Infirmary of Edinburgh: for double the usual hospital allowance of food was scarcely sufficient to satisfy his hunger †.” This circumstance is certainly extraordinary: but, I must observe, that I have not witnessed more than one case, in which the appetite for food remained unimpaired during the progress of the disease ‡. In every other instance, the anorexia was as remarkable as in febrile affections in general: so

* The distance of time between each desquamation is uncertain: but rigors, with an uneasy sensation of the skin, so clearly indicate a recurrence of the disease, that the patients are enabled to predict the circumstance of relapse. It should also be observed, that each relapse is attended, at the commencement, with febrile excitement, as at the first attack.

† M‘Mullin’s Essay, p. 28.

‡ The instance above alluded to occurred previous to the period at which I commenced taking notes of the disease. My memory furnishes me with nothing more

that, though what Dr. M'Mullin notices may occasionally happen, the circumstance is, by no means, of such frequent occurrence, as he seems to suppose.

During the entire course of the disease, there is very great anxiety and depression of spirits. Sleep is almost wholly banished; and opiates procure, at best, but very short intervals of repose. The misery of the patient, under those circumstances, can scarcely be conceived. To his mental sufferings, which form no inconsiderable share of his agony, is superadded the most exquisite bodily torture: for the surface is either left raw and unprotected, or the cuticle, hardened by the exudation which serves to give it partial adhesions, aggravates his torments. The pain which motion produces was aptly expressed by a patient of Dr. Spens: "he felt," he said, "as if his flesh was cracking in pieces." In unfavourable cases, a frequent, and very fetid diarrhœa, low delirium, or coma, precede dissolution. The presence of coma, or delirium, however, at this period, cannot be referred to the spreading of the inflammation from the external parts of the brain, or its membranes: for all inflammatory action is, at this time, past, and the surface is sinking fast into a state of mortification *.

Such is the progress, such, unhappily, has too often been the termination of the malignant species of this disease! And so keen is the anguish, so hideous the aspect of the unfortunate sufferer, that the poetical reader is at once reminded of the following beautifully expressive passage in the immortal Milton:

of the circumstances of the case, than that it was the only one I had ever seen in which the complaint was prolonged beyond the period of ten weeks; and that, though the exudation remained for a considerable length of time, the fever was not severe, nor of long duration.

* Phthisis pulmonalis, marasmus, psoriasis diffusa, gangrenous ulcer of the cheek, and fistula in ano have succeeded to Hydrargyria, and may be considered as consequences of the disease.

_____ can thus
The image of God, in man created once
So goodly and erect, tho' faulty since,
To such unsightly sufferings be debas'd
Under inhuman pains!

PARADISE LOST, B. xi. l. 507.

Although for the sake of perspicuity, the disease has been described under three distinct forms; it is but proper to observe, that cases occur which cannot be arranged under any of those divisions. These irregularities may be enumerated to consist of, 1. Cases, in which the disease appears mildly at first, but in its progress assumes the symptoms and appearances characteristic of the other forms of the disorder. 2. Cases, in which relapses occur, and the succeeding attack differs, in security and duration, from the preceding one. 3. Cases, in which the violence of the febrile irritation does not correspond with the severity of the external appearances. 4. Cases, in which the eruption, though partial, is followed by an obstinate and distressing desquamation.

As the Hydrargyria has been mistaken for other diseases, the following brief recapitulation of its most leading features is subjoined.

1. The eruption is, for the most part, at first vesicular.
2. The fever and eruption are generally synchronous in their appearance.
3. Exfoliation of the cuticle usually takes place, about four days after the appearance of the eruption, and is commonly preceded by soreness of the throat and fauces.
4. In severe cases, blisters, sometimes large vesications, precede desquamation. The cuticle, in such cases, cracks, and forms fissures; and the odour of the exudation from the surface is strongly characteristic of the disease.
5. The presence of the delirium ferox has never been witnessed,

however considerable the inflammation and tumefaction of the external parts of the head : nor has the head appeared engaged, excepting where the debility was extreme, and the exudation from the surface profuse.

6. When the cuticle desquamates, the parts underneath appear red, as before that occurrence.

7. The disease is never fatal, unless secondary fever supervene.

That the production of the troublesome and dangerous affection just described is attributable to the employment of mercury in peculiar habits, the following facts tend incontrovertibly to confirm: 1. Mercury aggravates the symptoms of the complaint, when produced. 2. By discontinuing merely the use of mercurial preparations, the progress of the disease will often be suspended. 3. The disorder may be reproduced by an incautious or too early recurrence to the exhibition of the mineral. 4. Somewhat similar cutaneous affections are the consequences of other irritants beside mercury; and those also admit of relief from the removal of the exciting causes.

A peculiarity of habit, or a certain state of the skin itself, has been supposed as predisposing to this disease, and appears, indeed, to be actually requisite for its production. That idiosyncrasy is sometimes the cause, may be inferred from the comparative unfrequency of the complaint, when the very great proportion of persons, who use the various preparations of this active mineral, without experiencing any such effect, is considered. Some individuals, besides, show a disposition to the disorder during their entire lives; and such are commonly affected by a very small quantity of any preparation.

But, that a certain state of the skin, at particular times, is also to be considered as productive of the disease, may be concluded from the circumstances, that some persons have not been affected upon every exhibition of the mineral; that others, who had the disease at the commencement of a mercurial course, have, after-

wards, resumed the use of the medicine without experiencing any inconvenience; while, in a few instances, the accession of the complaint has been delayed, until the patients had been affected with ptyalism, and other symptoms indicating the full influence of mercury; and until its production seemed evidently to depend on the operation of cold, or some other remote cause, inducing that peculiar state of the skin necessary for its formation.

Mr. Pearson observes: "this idiosyncrasy is not confined to either sex, nor to any particular temperament, nor to any period of life." The same gentleman, however, remarks, that he has never seen the disease in any patient who was more than fifty years of age. It further deserves notice, that the disease has, in some cases, been mild, though a very large proportion of mercury has been used previous to the appearance of the eruption; while, in others, upon the exhibition of a comparatively small quantity, the complaint has assumed the utmost degree of virulence.

Dr. M'Mullin seems to suppose, that the excitement of this affection, in peculiar habits, is similar to that irritation, which the exhibition of mercury usually produces. No facts hitherto presented confirm this idea: nor can the circumstance of other irritants being liable to excite similar cutaneous disorders be considered as any proof of the position. Hydrargyria has followed the administration of a few grains of the mildest preparation of mercury, before (what has been termed) the mercurial action could be supposed to have been excited. The use of the cinchona, it is said, has been known to cause similar irritation; yet, surely, it cannot be argued, that such irritation resembles, in any degree, the usual effects of that valuable medicine. It leads to no useful result, however, to prolong this discussion, unless with the view of establishing a doctrine different from the one entertained by that ingenious physician: for I would caution the unwary speculator in medical practice against proceeding, on the supposed identity of those two actions, in the employment of mercury, while Hydrargyria,

with fever, continues to affect his patient. Too much caution cannot, under such circumstances, be observed; and a position so completely hypothetical, can never warrant a practice so truly hazardous. I am aware that I have anticipated somewhat in entering, in this place, upon the treatment of the disease: but the remark, with which I have concluded this part of the subject, has been so strongly impressed on my mind by the most irresistible evidence, and appeared so closely interwoven with the point in question, that I shall, perhaps, be excused what must otherwise seem a digression.

When either of the predisposing causes before mentioned is present, the disease is pretty equally excited by the various preparations of the mineral. An adult has been affected with the complaint from having taken only twelve grains of the sub-muriate, given, at intervals, with antimonial powder, as an alterative; and Dr. Duncan, junior, met with a similar case in private practice. The subject of Dr. Duncan's case was a girl only nine years old; and he did not consider the constitution to have been affected with mercury. I have myself seen the eruption appear over the entire body of a boy about seven years old, for whom but three grains of the same preparation had been prescribed, ineffectually, as a purgative. It deserves to be mentioned, that the father of the boy had been affected with the disease, in its malignant form, about twenty years before, at Edinburgh, while under a course of mercurial frictions for a venereal complaint.

Another remarkable circumstance strongly supporting the position, that the formation of the disease depends on the peculiarity of habit, termed Idiosyncrasy, is that of two sisters being affected, at the same time, at the Lock Hospital of Dublin, and whose cases discovered symptoms of peculiar malignity. In one of the most dreadful instances I have ever witnessed, the disease was produced by the blue pill; and Dr. Spens has related that this same preparation, and the grey oxide in the form of unction were

substituted for the common ointment of mercury, with no good effect *. Mr. Pearson remarks, that he has seen the disease occur partially from touching any part of the body with mercurial ointment, and even by a few grains of the red precipitate falling accidentally on the skin †.

But a still more remarkable occurrence is recorded in the *Medicinæ Septentrionalis Collatitia* of Bonetus, as a communication from Dr. John Paterson Hain, a physician in Upper Hungary. “*Addo singularem in me antipathiam observatam cum mercurio, sive vivo, sive preparato. Ante annos 12, tractate illum potui, pro lubitu. Nunc, si inferatur in conclave, vel si veniam eo, ubi mihi prope esse potest, vel, quid majus, si tracto illum, statim inter digitorum spatia pruritus, et rubedo, et tumor, ut et in facie, et maxime in ulnâ a parte domesticâ, cum aliquâ mutatione in corpore, et tedio. Annus est, ex quo Dn. Capitaneus Czorstinensius litt. ad me miserat: rusticus, qui eas ferebat in sinu, gestabat intra indusium quod unguento mercuriali propter pediculos inunxerat. Vix productis literis, statim mihi intumuit, ut ovum gallinaceum superaret, manus; facies rubebat, pruriebat, intumescebat. Aliquando inter digitos epidermis recedit. Fermentari igitur sanguinem et ebullire oportet a mercurialibus effluviis tum per os intromissis, quam poros, nam longe me vehementius invadit, et citius, si eundem tangam. Jam credo, si diutius in manu tenerem, vel intra corpus sumerem, me vitæ periculum incursum†*”.

I once thought that mercury, introduced into the system by frictions to the skin, was more apt to excite Hydrargyria, than when taken into the stomach. The correctness of that opinion, however, I am now much disposed to question. If the external exhibition of the mineral more frequently produce the affection, it must also be recollected that that is the more generally employed;

* See Spens's "History," &c.

† Observations, &c. p. 175.

‡ Vol. ii. p. 386. Ed. Gen. 1686.

especially in large venereal hospitals, where the treatment of lues is seldom confided to the internal use of the medicine alone. But, should the proportion of instances, in which the disease is excited by the external application, appear too great to admit the explanation just offered, a consideration of the comparative quantities introduced by each mode into the system, in the same period of time, will probably afford a more satisfactory solution of the difficulty. Granting that a third of the mercury employed in frictions generally enters the habit, if a drachm of the stronger ointment be used at each rubbing, it follows that a quantity, not less than ten grains, is conveyed very directly into that system; and that in a space of time not exceeding, perhaps, an hour. Of the preparations usually given internally, with a view to produce the mercurial effects, not more than five grains, in general, can be taken into the stomach in the course of a day; and even a portion of that quantity may be supposed to pass off by the bowels. The absorption of the mineral, then, being more gradual when administered internally, the system, it may be supposed, has time to accommodate itself, during such an exhibition, to the excitement, which so powerful an irritant must produce: whereas, it is scarcely necessary to observe, that such cannot be the case, where the quantity is large, and the absorption, at the same time, rapid and certain.

Whether certain adventitious circumstances favour the production of the disease, is a matter of very considerable moment: but it is one on which experience has hitherto afforded very little information. Exposure to cold has been supposed to operate, in every instance, as a remote cause. Of this opinion is Professor Gregory, as we are informed by Dr. M'Mullin; and the latter gentleman seems inclined to adopt that supposition, in consequence of the general presence of catarrhal symptoms. Were the circumstance adduced in support of this opinion, founded in fact, it would yet be insuffi-

cient to prove the position ; as it must be evident that the same reasoning will extend, with equal propriety, to other eruptive diseases accompanied with similar symptoms. Few, however, will be disposed to admit that the production of Rubeola, for instance, depends on the operation of cold : though the pulmonary affection is often, in that disease, peculiarly severe. Cases, besides, of the Hydrargyria, frequently occur, in which the chest remains unaffected ; while, in some instances, again, the lungs suffer severely, though the temperature of the apartments has been regulated with attention. It may, therefore, without any great violation of probability, be concluded, that exposure to cold is not absolutely necessary for the production of the complaint, and that the catarrhal affection, when present, is entirely symptomatic of the disease.

On this subject Mr. Pearson does not seem disposed to accede even to as much as I have admitted. He observes, " I am not sure that the agency of any other cause than that which I have assigned (peculiarity of habit) is necessary to the production of the disease ; since I have seen it occur in private practice, as well as in the Lock Hospital, where the strictest attention has been paid to the temperature of the apartment, to regimen, and to cleanliness *. My experience has enabled me to draw a medium between these discordant opinions ; and in this I am supported by the authority of Dr. Spens, whose observations are entitled to great respect †.

* Observations, &c. p. 173.

† Spens's History, &c. p. 17. l. c.

A Madras correspondent of the intelligent Editor of the Edinburgh Medical and Surgical Journal observes, " With the natives, who never can be made to clothe themselves sufficiently, or almost at all, when under the use and influence of mercury, this disease (Hydrargyria) occurs very frequently, and often proves destructive." Vol. ii. p. 503.

TABLE.

	Hydrargyria mitis.	Hydrargyria simplex febrilis.	Hydrargyria maligna.	Total.	Cured.	Died.
Male . . .	6	12	10	28	22	6
Female .	4	7	4	15	13	2
Total . .	10	19	14	43	35	8

The above table exhibits the number of cases which I have witnessed in the course of the last ten years, as also the proportion of males and females, with the comparative mortality in either sex. Men appear to be more liable to the disease than women; while children are much less frequently the subjects of it than adults. In the course of the period before mentioned, I have seen the complaint but thrice in infants; and in none of those was mercury administered for a venereal cause. In the great proportion of the adult cases, however, which have fallen within my observations, the mineral has been exhibited to remove the primary symptoms of syphilis, which, as well as the secondary, when they existed, have in general suffered a temporary suspension, or removal, by the supervention of Hydrargyria.

Nor is this suspension, or removal, confined merely to the symptoms of the venereal disease. A gentleman, who used the mercurial ointment for severe symptoms of Hepatitis, was affected, after a few frictions, with Hydrargyria, which totally removed the liver complaint; and a solution of the muriate of mercury, prescribed by an empiric for a poor man in the same disease, produced the same effect. Even the discharge, in two cases of Gonorrhæa, has been checked by the supervention of Hydrargyria, and never afterwards

returned. This removal of the primary disorder has, in general, however, only been observed, when the mercurial affection assumed the simple-febrile, or the malignant forms: the appearance of the mild variety causing but little, if any, alteration of the local or constitutional symptoms of syphilis; or, indeed, in those of any other disease*.

Cutaneous diseases, somewhat resembling the Hydrargyria in their external appearances, are not unfrequently the consequences of the application of other substances beside mercury; and those irritants are not confined to the mineral kingdom, but extend to

* The supervention of Hydrargyria, as it seldom causes a suspension of syphilitic symptoms, unless it be accompanied with fever, should not be considered as sufficient, at any time, for the extinction of the venereal virus in the system: for it has, in general, been observed, that, where the primary symptoms of lues have been removed by the appearance of Hydrargyria, the same symptoms have recurred on the abatement of the fever accompanying the mercurial eruption, or the system has been afterwards found affected with the venereal disease. This corresponds with the experience of a judicious writer, as to the suspension of syphilitic action, by the presence of fever in general. "Whenever," Dr. Renny remarks, "any feverish symptoms come on, which render it necessary to discontinue the mercury, the venereal sores will, for the most part, disappear, but will uniformly return when the fever has subsided, and the patient recruited a little strength." See Renny's Treatise on the Venereal Disease, p. 142.

Yet some respectable practitioners have shown, I understand, an inclination to be influenced in their practice, as to the quantity of mercury they would afterwards employ, by that temporary removal of venereal symptoms occasioned by the supervention of Hydrargyria: some thinking a smaller proportion; others, a larger quantity of the medicine to be necessary for the cure of the original disease. But, Hydrargyria being, as I apprehend, an excitement very different from the usual irritation which the use of mercury occasions: its supervention, in my opinion, should have no influence on our practice as to the after-treatment of venereal cases. My friend, Mr. Crampton's ideas exactly coincide with mine on this subject; and I am authorized by Dr. Willan to state the following as his opinion, formed, as he acknowledges, not so much on his own experience, as on that of six or seven intelligent surgeons in London: "A change of the venereal symptoms, connected with the eruption from the use of mercury, does not indicate that the venereal disease is cured, nor that its cure may be accomplished by a quantity of the mineral, considerably less than usual."

the animal and vegetable also, comprehending many articles highly esteemed as dietetics. The simple enumeration of those irritants might, in this place, be deemed sufficient: yet, a concise account, as delivered by different authors, of the affections, which the most remarkable of them produce, may be more satisfactory.

Those best described arise from the eating of certain fish. Dr. Bæhrens, a physician of considerable eminence, has stated with minuteness the effects of muscles on his own person; which, as they are accurately related in Dr. Willan's Description and Treatment of cutaneous Diseases, I forbear to insert here*. Dr. Willan does not pronounce this affection to be urticaria, though noticed under that head; as he only observes, that "a disease very similar to the febrile urticaria, is produced, in particular constitutions, by substances offensive to the stomach, such as almonds, mushrooms, herrings, crab-fish, muscles, and lobsters." In fact, the efflorescence, as M. du Rondeau has asserted, I can, from experience, declare to be peculiar in this affection, and to bear no close resemblance either to scarlatina, erythema, or any disease but the Hydrargyria itself†.

The poisonous effects of other fish have also engaged the attention of physicians. Dr. Clarke, in describing the deleterious consequences, which the eating of certain fish peculiar to the West Indies produces, remarks: "a singular effect of fish poison is to remove the epidermis in patches, or spots, about the hands and feet, which continue white in people of colour, and of a pale yellow in white people, for life‡. My friend, Mr. Rodgers, surgeon to the Forces at Cork, who was for many years in the West Indies, relates, "I have seen a red eruption, and general dry

* P. 407. Vol. i.

† Memoirs of the Academy of Brussels. Vol. ii.

‡ See an Account of the poisonous Quality of the Juice of *Jatropha Manihot*, or Bitter Cassada, and of the Use of Cayenne Pepper, in counteracting the Effects of this and some other poisonous Substances. By James Clarke, Physician in Dominica.

desquamation very frequently from the eating of certain kinds of fish in common use among the Islanders of St. Kitt's. One instance, in particular, I remember, where these effects followed the use of the King-fish. The case I allude to, was that of a captain in the 9th regiment of foot, who, about an hour after dining heartily on that fish, was seized with sickness at stomach, and a pricking sensation of the skin. A copious red eruption succeeded, and was followed, after a few days, by general desquamation of the cuticle. The duration of the complaint exceeded a fortnight. It was particularly remarkable, that that gentleman *alone* suffered any inconvenience from eating the fish, though many besides partook of it."

Dr. Thomas observes: "The usual symptoms of fish-poison are cardialgia, nausea, severe vomiting and purging, tormina, cold sweats, fainting, and in some, vertigo. The face in the mean time, becomes highly flushed, and the eyes inflamed with a burning heat and spasmodic twitches, which particularly affect the eyes, the sufferers complaining that they are ready to start from their sockets."

"The burning, which is felt in the face and eyes, is extended to the hands, the tips of the fingers, and over the whole body; sometimes accompanied, and sometimes succeeded by a miliary eruption; or by an efflorescence, resembling the bite of a bug, but more extensive. The pulse for the most part is hard, and frequent. This ardor of the skin, and a prickling of the hands and nose when immersed in water, are almost invariable symptoms of fish-poison, and enable the practitioner to decide with confidence on the nature of the disease."

"When the violence of the disorder is somewhat abated, the cuticle begins to scale off in various parts of the body. In one patient whom I attended, a miliary eruption accompanied the ardor of the skin, without any evident desquamation *."

"The poison of each fish," says Dr. Chisholm, "seems to possess

* Memoirs of the Medical Society of London. Vol. v. p. 94.

a peculiar action on the human body. The poisonous gray snapper affects the bowels chiefly, occasioning a cholera, with pains so excruciating as scarcely to be borne: it also produces an itching of the surface; and sometimes, but very rarely, a denudation of the cutis, the cuticle peeling off, as in some species of lepra."

" I do not recollect more than two instances of the poisonous effect of the Dolphin. One of these occurred in Grenada. In this, besides violent headache and nausea, there was the eruption of large blotches of a very florid colour, intolerably itchy, but very distinguishable from the prickly heat, and the eruption occasioned by the clupea thryssa, inasmuch as this was in clusters of the breadth of the palm of the hand, had no distinct pustules, but was of an uniform redness and surface."

" The King-fish (*scomber maximus*) frequently, when of uncommon size, gives rise to very unpleasant symptoms, such as cholera and florid eruptions *."

A case lately occurred to myself where the affection was produced by the eating of stale mackerel. The patient was a delicate woman, but had often eaten the same sort of fish, when fresh, without experiencing any such effects. In this instance, she had not swallowed a very small quantity above half an hour, before she became affected with severe headache, or rather with a painful sense of tightness over her eyes, and flushing of the face. These symptoms were soon followed by a most distressing sensation, similar to burning, over the entire surface. The colour of the skin resembled the hue of a boiled lobster; and minute vesicles were, in many places, apparent. In about an hour and half after the administration of an emetic, the eruption disappeared: but the headache continued during the entire of the following day. No desquamation of the cuticle was observable.

The fish, which I have seen most frequently productive of those effects is the Salmon, (*salmo salar*) which, though usually and

* Edinburgh Medical and Surgical Journal. Vol. iv, p. 395-6.

justly reckoned nutritious, abounds with oil (particularly the skin) and thence, perhaps, is offensive to delicate stomachs. The herring, being also a rich and oily fish, has sometimes been found to produce irritation in peculiar habits *.

Dr. Francis Home has recorded several cases of eruption, which he refers to Herpes, or *Lepra Græcorum*; and which, he says, the patients attributed to a diet of salted food, of fish, salmon and milk, a moist habitation, and exposure to cold when heated, but never infection †.

A case is related by Dr. Huxham, in which the patient, a gentleman from the West of Cornwall, was affected with an eruption from the use of the cinchona. The patient took, for stone in the bladder, alkaline medicines, until scurvy was induced, to remedy which, the Doctor found it necessary to administer bark with elixir of vitriol. These medicines had the desired effect: but, he remarks, "About some two or three weeks after, a copious eruption of red, fiery pustules broke out upon him, which seemed to promise some advantage. However, being reduced exceeding weak by a complication of disorders, and a confirmed hectic, he died quite tabid about a fortnight or three weeks after ‡."

* See Withering on the *Scarlatina Anginosa*, p. 63.

My learned and much respected friend, Dr. John Callanan, of Cork, has mentioned a case which may very properly be inserted here, and which strongly evinces the impropriety of endeavouring to conquer any peculiar dislike to certain articles of diet. "A gentleman, who never ate scollops without experiencing the most violent sickness at stomach, was determined to overcome his antipathy to that fish, although he had before resolved totally to abstain from them. Accordingly, having supped very heartily upon them, he retired to bed, where he was found lifeless next morning." Many instances of extraordinary antipathies are recorded in the *Med. Col. Sept. of Bonetus*, vol. ii. to which the curious on this subject are referred.

† *Clinical Observ. Hist. and Dissections*, p. 402.

‡ *Essay on Fevers*, Ed. VI. p. 49. Some may, perhaps, be inclined to refer the appearance of the eruption, in the case above related, to the exhibition of the alkaline medicines, previously employed: as Mr. Cruickshank has noticed similar effects

The swallowing of the bitter almond has been noticed by several writers as deleterious to brute animals *; and Hippocrates himself has remarked the heating effects of almonds in general †. Mr. Crampton has thus described the effects of almonds, and some other vegetable substances, upon Dr. Gregory; "shortly after having eat of them, he feels a tingling sensation in his skin, which is immediately succeeded by a redness, and copious miliary eruption over the entire surface of the body. At the same time he suffers severely from vertigo, nausea, pain and oppression about the præcordia: all which subside in the course of the day. I do not recollect whether, in Dr. Gregory's case, the eruption was succeeded by a desquamation of the cuticle: but I am rather inclined to think it was; because, in the case of a young lady, whom I had an opportunity of observing under similar circumstances, a scurfy desquamation uniformly succeeded to the eruption. In both cases, however, although the surface of the skin, affected with the eruption, was of a reddish hue, the elevation of the cuticle appeared, upon a close examination, to be produced by an infinite number

to arise from the use of the oxy-muriate of potass. Rollo's Cases of Diabetes Mellitus, &c. 2d edit. p. 623. The bark, however, has produced eruptions on the skin. See Duncan's Annals of Medicine, 1800, p. 484, &c. &c.

* Dioscorides de Mat. Med. lib. iv. and vi. Hoffman. de Med. Off. lib. ii. c. 162. Mathiolus in Dioscorid. Epis. lib. iii. Horstii Dispensat. lib. vi. p. 236. Tragus de Marcello Virgilio. Geoffroy. Mat. Med. &c. &c.

† *Αι αμυγδαλαι καυσωδες δια το λεπαρον.* Aph. xlv. Dr. Winterbottom ascribes the unpleasant effects which arise from the eating of almonds, to their skins or husks, which contain an acrid matter. (Med. Facts and Obs. vol. v.) The oil of the almond, when not well preserved, has also become rancid, rendering the kernel heavy and indigestible. (Dr. Pearson's Pract. Synopsis of the Materia Alimentaria, &c. p. 82.) A water distilled from bitter almonds has been found equally poisonous to animals as the kernels themselves. Dr. Duncan, junior, remarks, "the similarity of the smell of bitter almonds to prussic acid led Mr. Schrader to suppose, that it was owing to the presence of this acid; and it is said that he has found his supposition correct, and that prussic acid is equally poisonous with the bitter distilled waters." New Edinb. Dispensatory, 3d edit. p. 152.

of small watery vesicles, similar to what have been termed 'Miliaria'."

Pliny speaks of eruptions being excited by taking coriander seeds *: and Bonetus relates a case, where squills produced severe prurigo †. The use of the mango root is often followed by an eruptive complaint, which Dr. Sherwin, who has described it, refers to the Lichen Tropicus, and considers as a salubrious determination to the skin, which should not be hastily repelled ‡. Thus Dr. Heberden; Emplastrum cantharidis in quibusdam genuit hunc affectum (essera), in aliis radix valerianæ sylvestris intus data §."

A very distressing affection of the skin takes place in the workmen employed to gather the Indian varnish, which the Chinese call *tsi*, and which is a reddish gum that distils through incisions made in the bark of certain trees. "The disease," Du Halde observes, "begins with a kind of ringworm, which, in the space of a day, covers the face and the rest of the body, for it spreads in a few hours, and grows very red; soon after the face swells, as well as the body, till the person seems to be quite covered with a leprosy." The same author adds, that the skin cracks in several places, from whence a sharp humour proceeds; and, on the application of an absorbent powder, the cuticle desquamates, and a new surface is generated ||. From the observations of Dr. Del Papa, it appears, that the skin alone is affected by the application of the varnish; the system, according to his account, not partaking of the excitement: and it is worth remarking, that the communicator endeavours to show, that *no mercury* is contained in the

* Nat. Hist. lib. xx. p. 381.

† Med. Sep. Coll. Vol. ii. p. 565.

‡ Duncan's Annals of Medicine. Vol. ii. Lust. ii. p. 289.

§ Comment. cap. xxxv. p. 149. See Reaumur's Memoirs, pour l'Histoire des Insectes. Tom. ii. Mem. 4. p. 191.

|| Du Halde's General History of China, p. 307.

varnish, the effects of those irritants being, as he affirms, very different *.

Dr. Johnston, of Cork, has favoured me with the following cases, in which camphor produced both an eruption and general fever. "About two years ago, when residing in the county of Monaghan, I was requested to visit a man named M'Kenna, aged 30 years, of a temperament rather sanguine. I found him labouring under a rheumatic affection. The pains were confined to his knees and ancles. They appeared to be deeply seated, as there was no swelling or discolouration of the affected parts. His pulse was about 86, heat moderate: he had no thirst, nor did his tongue appear foul. The pains attacked him about fourteen days prior to the time I first saw him, after exposure to cold, accompanied with moisture. His appetite for food was not much impaired; and, he said, he merely confined himself to bed, as his pains were greatly increased by motion. Belly rather costive. I merely prescribed for him a solution of vitriolated soda and manna, and directed that the affected parts should be well rubbed with some of the following liniment, three times a day, and covered with flannel:

R. Camphoræ ʒ ss.

Olei. Oliv: ʒ iv. fiat linimentum.

He was likewise ordered to be bled the next day, if the pain should remain after using the above remedies.

"I was much surprised, two days afterwards, when called to see him a second time, to find his face and shoulders covered with an erysipelatous inflammation: his pulse frequent, hard, and strong. The original rheumatic affection had entirely subsided. I must confess I was not a little puzzled how to account for those appearances, until the patient informed me, that, having received

* Philosophical Transactions. No. 274, p. 947.

much benefit from the first application of the liniment, and being anxious to recover soon, he had got the bottle three times repeated, and had used it almost without interruption, from the time I first saw him.

“ It may, perhaps, not be superfluous to mention, that the erysipelatous inflammation was, on some parts, particularly on the forehead, attended with vesication, but that on the back it exhibited the appearance merely of a large blotch of a very bright red colour, disappearing upon pressure.

“ He was ordered to discontinue the liniment, and was treated according to the usual method pursued in Erysipelas, from which he recovered in eight or ten days, and had no return of his rheumatic complaint.

“ In the course of the last year, I witnessed a case nearly similar to the above. It occurred in a lady, a resident of this city, who, for an inflammatory affection of one of her legs, had used, topically, a large quantity of camphorated spirit of wine, in the course of one night. Her pulse, prior to the use of the camphorated spirit, was not increased in quickness: but, on the morning after, she had some vertigo, and an accelerated pulse; and, complaining of some uneasiness between the shoulders, I found there, on examination, a large erysipelatous blotch, about twice the size of a person's hand, without any vesication.

“ She was treated according to the usual plan, and soon recovered. However, the original complaint in her leg was not relieved by the new febrile action.

“ It appears, therefore, that a quantity of camphor, absorbed into the system, may, in some cases of peculiar constitution, excite erythematic inflammation on the surface.

“ Since the above cases took place, I am inclined to think that the great quantity of camphor contained in the mercurial ointment of the Dublin Lock Hospital, has no small share in producing the complaint known by the name “Mercurial Disease,”

when a certain habit of body is present. I do not mean to say, that the camphor alone, independent of the mercury, and the impure air issuing from the bodies of so many persons charged with that mineral, would produce all the appearances which take place in the worst species of that disease; nor do I think the mercury itself insufficient, in some cases, to excite the symptoms attributed to it: however, if we reflect that the disorder occurs much more frequently in its worst form, in the above hospital, than in other places; and that the stimulant power of mercury must be determined to the surface in a much greater degree by its conjunction with camphor, we may at least conclude, that the action of the latter article, in particular constitutions, is not rendered more inert by its union with mercury, but that the united efforts of both would be more likely to excite the malignant species of the disease in question, than those of either acting *per se*."

Desgenettes mentions the occurrence of an eruptive disease, resembling in its symptoms the affection from mercury, in Egypt, while the French army occupied that country during the last war; and says, it was attributed to the use of the unwholesome water of the Nile *. Exanthematous affections of the skin are noticed by Lancisius as arising in persons living near lakes; and the same author attributes those effects to the swallowing of very minute insects; and concludes, that the external disease is symptomatical of internal irritation †. It has been observed by Hippocrates, that large showers of rain, with heat and a southerly wind, occasion an itching and irritation of the surface ‡; and the influence of the sun's rays is mentioned by the Greek writers, who have treated of Eczema as one of the causes of that affection.

The eruptive disease, termed by the Romans "Sudamina," or "Papulæ sudoris," is thus described by Sennertus: "Sudamina,

* Historie Medicale de l'Armée d'Orient. Paris.

† De Nox. Palud. Effluv. Lib. i. c. xviii.

‡ Epid. 2. Tom. ix. p. 118.

Grecis *υδρωα*, sunt exanthemata in summa cute corporis hærentia, granis milii similia, quæ cutem exasperant—Affectus familiaris est pueris et juvenibus, præsertim temperamento calidioribus, qui ætatis tempore nimis moventur et exercentur, in collo, scapulis, pectore, brachiis et femoribus, frequentius tamen circa pudenda et anum accidens.” The same learned author mentions, among other causes, the use of hot and acrid substances after a warm and wet summer *.

Exposure to cold air, while the body is warm, is also enumerated by some as a cause of cutaneous excitement. Thus the celebrated Van Swieten: “In delicatulis puellis et teneræ constitutionis viris observavi aliquoties, quod si mane e lecto surgentes, apertâ tantum fenestrâ, manus et faciem libero aëri exponerent, illico hæc in bullas prurientissimas attollerentur; sive hoc factum fuerit ab impedito perspirabili per matutinum frigus cutim irritante, sive ab acribus in aëre volitantibus, quæ diurno calore disperguntur †.

To similar causes, perhaps, may be attributed the occurrence of eruptions, in cases related by some other respectable authors, the origin of which is ambiguous. An affection of this kind is described by Sydenham, as a species of measles, in the following passage: “Duobus primis mensibus, quibus hæc morbillorum species se prodebat, intercurrebat et *febris* quædam *morbillosa*, hic illic sparsa, in quâ *εκθύματα* nonnulla per truncum corporis, colli præsertim posteriora, atque humeros erumpebant, *ecthymata* morbillorum imitantia; a quibus in illo saltem determinabantur, quod non universum corpus pariter occuparent, quas diximus partibus contenta; febris etiam (licet ejusdem plane generis) immanior erat, et ad dies 14, nonnunquam etiam plures, protrahebatur ‡.”

* Pract. Med. cap. xxiv.

† Comment. in Herm. Boerhaav. Aphor. Tom. ii. p. 398. Ed. Lugd. Bat.

‡ Op. Med. Morbilli An. 1674. p. 144. Ed. Gen.

A case, the cause of which is equally uncertain as that of the affection observed by Sydenham, is related by Piso, and so closely resembles the Hydrargyria, that I am induced to insert it at full length. “ Generoso igitur puero, Joanni Egmundo de Rinach, Domino de Montreux in comitatu Ferretensi, synocho putri mediâ hyeme oppresso, eaque gravibus stipata symptomatis, magnâ lassitudine, summâ pectoris angustîâ, ac prope suffocatione, necnon dolore capitis et dorsi, cæterisque plethoræ insigniter ebullientis affectibus (quanquam, ab injecto enemate, secta vena detractus fuisset sanguis mature quidem pro meo more, sed habita teneræ ætatis ratione in copia mediocri) circa quartum diem delirium, una cum vigiliis, et maculæ toto corpore supervenêre. Atque vigiliæ quidem et delirium, mite licet et minime ferox, integrum septenarium viguêre; maculæ autem sensim extuberavere, non in acumen et conum, sed longè latèque admodum, ut universa facies, una cum toto corpore, non sine horrore spectantium admodum extumeresceret, sed eæ, non purulenta materia, sed sero duntaxat ebulliente turgebant, ut totum corpus vesiculis scatere videretur: scilicet in quibus cuticula extans, quasi pelluceret ut laterna punica, et, vesicâ apertâ, non crassus sive lacteus, quale est pus e sanguine genitum, sed aqueus prorsus humor dimanaret.

“ Quem sane particulam fuisse serosi humoris in sanguine putrente effervescentis e vasis longe lateque sed intra epidermida subsistentis, sanguinis ipsius crassamento in vasis restitante, hæc sunt, præter sensum visus, clara documenta: scilicet pustulæ circa decimum quartum subsidere cæpêre, sponte, nullo humore aspectabili diffuente, resoluta aqua, sed cuticula quasi ambusta incinerataque brevi in furfures sordidaque crassamenta abeunte, ut totus lectus, iis pustulis brevi exsiccatis, furfuribus sordesceret. Deinde, pustulis ita facessentibus et evanescentibus, nulla in vultu earum vestigia, aut superficie reliquâ corporis, cavitates nullæ in exesâ cute impressæ fuere, tametsi admodum pruriginosæ essent, non aliter atque

*Hydroa, quæ scabiem prævertere solent ab ebulliente sub vesperam seroso humore ratione putredinis salsuginoso succrescere solita *.*"

It would not be difficult to multiply instances of the production of eruptive diseases, from various other irritants, besides those which I have here enumerated †. The object of my references, however, being to exhibit some affections analogous to the complaint which mercury excites, it would be tedious to dwell longer upon this subject; much less is it necessary to consider those anomalies, for which no adequate causes have been assigned, and whose classification, from imperfect description, it is impossible to determine. Two histories, however, are subjoined in the Appendix to this work from Dr. Mitchell, of Edinburgh, which are too interesting and too well authenticated to be omitted.

Nor, in adverting to such cutaneous disorders, have I been particular in selecting those, in which the eruption is accompanied with vesiculæ. This task is consigned with confidence to that nosologist, whose labours have already so much elucidated medical history; though, even to Dr. Willan's judgment and learning, the office will not be devoid of labour and difficulty. "The varieties of disorders," that physician has, in one of his letters to me, observed, "are endless, and will not be confined within the limits of artificial arrangement; so that bitter almonds producing vesicles, and mercurials occasionally producing wheals or papulæ, or, instead of vesicles, large vesications, need not excite surprise in medical practitioners. Notwithstanding such aberrations, we may

* *Select. Obs. et Consil. de prætervisis hactenus morbis affectibusque ab aquâ seu aërosa colluvie et deluvie ortis, liber singularis*, p. 538. Ed. Lugd.

† See *Edinb. Essays and Obs.* p. 41; and Dr. Rees's *New Cyclopædia* for an eruption from arsenic: from lead, Dr. Thunberg's *Travels in Europe, Africa, and Asia*. Vol. i.

See also Gaitskell's *Observations and Experiments on the external Absorption of emetic Tartar and Arsenic*. *Memoirs of the Medical Society of London*. Vol. iv.

be allowed to classify as well as we can, and approximate to the truth. Linnæus, with a more promising subject before him, could not always be correct: many genera of plants, from exhibiting occasional varieties, have been put down by him under two or three different orders, though he has shewn a preference to the situation he deemed most natural."

With respect to the classification of the Hydrargyria itself, it seems only necessary, in addition to what has been already advanced on that subject in the preface to this work, to transcribe the following observations from the same letter of that excellent authority: "Since you are, perhaps, writing on this disease *alone*, you may very properly give it a generic denomination appropriate: but if you rank it under a secondary title, as Herpes, Miliaria, Eczema, &c. the analogy of it, with the complaints so denominated, should be clear.—It will be best to follow your own bias. Whether you give it a particular name, or say generally 'Vesicular eruption produced by the exhibition of mercury,' your work will be understood, and referred to by those who write on the subject afterwards."

In the treatment of the Hydrargyria mitis little more is requisite than to discontinue the use of all mercurial preparations, to remove the patient from the apartment in which they have been exhibited, and to advise tepid ablution of the body, and some gently purgative medicine. But, while the prosecution of these simple precautionary measures is, in almost every instance, attended with good effects, the neglect, or only partial adoption of them, may be followed even by fatal consequences.

Mr. Pearson indeed remarks, that he has sometimes thought it necessary to persevere in the use of mercury, while the eruption continued to affect the patient, and considers its partial or general appearance as a good rule for the further employment or discontinuance of the medicine. In expressing my doubts of the probable

evils being compensated by any possible advantages resulting from this practice, it must be satisfactory to subjoin the opinions of other practitioners, whose opportunities enable them to speak with confidence on this subject; especially, as those opinions serve to confirm the fears, which my own experience had created. Thus, Mr. Crampton: "I have never seen the disease terminate fatally, when the use of mercury had been discontinued on the first appearance of the eruption. In all the fatal cases which occurred in the hospital, the patients, conceiving the eruption to be venereal, had, unadvisedly, persisted in the use of mercury." To this may be added, the testimony of Messrs. Garnett and Wilmot, the other assistant surgeons to the Dublin Lock Hospital. The former of these gentlemen remarks: "No fatal termination has occurred in any of the cases of the mercurial disease, which I have had occasion to treat in my private or hospital practice; nor have any of them been so severe as to excite a moment's apprehension for the patients' safety—but I cannot answer for the consequences which would have followed my persisting in the use of mercury during the existence of the disease; inasmuch as it has been my practice invariably to direct that the patients should desist from its use, and should be made free, by proper ablution, from any portion of ointment adhering to the skin." Mr. Wilmot is not less cautious in his practice. "I have never," he observes, "used mercury in any stage of the complaint; and, in consequence, I do not recollect to have seen one fatal case, since my attention has been particularly directed to the disease*."

* It was remarked in a former part of this work, that there are many facts to prove that certain substances may produce their usual effects upon the human body through the medium of the lungs. It seems necessary in this place to advert to this circumstance, as enforcing a point of practice, which demands the most serious consideration. From the experiments of Dr. Rousseau, of Hispaniola, it appears that musk, turpentine, garlic, and camphor, are capable of being absorbed by the lungs, as is clearly proved by their imparting a sensible property to the urine—the smell of violets. The effects of mercury have also been so produced. M. Achard has stated

In the simple febrile, and malignant species, the same plan of treatment is, during the eruptive stage, always applicable ; and the

(*Journal de Physique*, Octobre, 1782) that, having left 20lbs. of mercury over a heated furnace for some days, he and two other persons who remained in the apartment experienced ptyalism. Chaptal mentions a speedy salivation to have been excited in two persons from the inhalation of oxygen gas prepared from a mercurial oxide, which, he affirms, always holds a small quantity of the metal in solution. Dr. Rousseau also relates the same effects to have taken place in three persons (one of whom was a Professor in the University of Pennsylvania) from being confined in apartments in which frictions of mercury had been employed.

On this subject Dr. Stock, of Bristol, has offered the following theory: "From several experiments, which are not yet sufficient to enable me to say any thing positive on the subject, I am induced to believe that mercury, being a substance volatile enough to be capable of rising, and diffusing emanations by a moderate degree of heat, it may, with the assistance of the heat of the body of those using the frictions, be raised in very minute particles, as musk, camphor, spirit of turpentine, garlic, and others, and reabsorbed in the same manner as those volatile substances are."—"May it not," Dr. Stock inquires, "be supposed also that, during the frictions, some of the mercury is, by the action of the air, assisted by the heat of the body, oxidized; that it afterwards parts by degrees with its oxygen, which carries along with it to the lungs some parts of the mercury, which is with difficulty separated from it?" (*Edinb. Med. and Surg. Journal*, vol. ii. p. 10.) There is certainly a great degree of probability in this theory relative to the suspension and diffusion of minute mercurial particles, and their consequent absorption by the lungs: but yet I much question the propriety of doubting altogether the absorption of the mineral by the cutaneous vessels, even where mechanical pressure is employed; and until Dr. Stock shall have favoured the public with the result of his experiments on the subject, the supposition of Seguin, adopted by Fourcroy, and acknowledged as correct by our own enlightened medical philosopher, Currie, must be allowed to hold that weight, to which the ideas of such men are so eminently entitled. Fourcroy has thus expressed it: "*L'onguent mercuriel n'agit que par une friction qui fait pénétrer l'oxide de mercure sous l'épiderme, et le met dans le cas d'être absorbé.*" (*La Med. éclairée par les Sciences Phys.* vol. iii.) It would be foreign to the present undertaking to enter further into this subject: particularly as the object of the references made above was simply to shew, that mercury is capable of being absorbed, as well through the medium of the lungs, as through that of the skin or stomach. This being proved, the point of practice immediately deducible evidently appears to be, that, to arrest the effects of mercury, it is equally necessary to remove the patient from an atmosphere loaded with mercurial vapour, as to desist from the internal or external use of that active mineral.

precautions necessary in the mild variety, should here be more particularly observed. The simple measures before recommended have, in many cases, rendered the disease comparatively mild, even where it commenced with severe febrile derangement; while, on the contrary, it pains me to observe, that I have too often witnessed, where the degree of pyrexia was at first inconsiderable, great aggravation of the symptoms, from the neglect of these precautions, and, notwithstanding a most judicious subsequent treatment, a fatal termination of the disorder.

Mr. Pearson observes: "Although the troublesome symptoms which arise, may be relieved by their proper remedies, I am doubtful whether any plan of treatment has the power of interrupting its regular course, or abridging its duration*." My opinion accords with his, if reference be only made to the measures hitherto recommended: but I would by no means despair of success from the employment of others yet to be devised, or a more vigorous prosecution of those already known to be, in some degree, efficacious. If an unfavourable issue were never to be dreaded, it must yet be of consequence to diminish the sum of human misery: but, unfortunately, to a full measure of suffering there is danger of having to add the loss even of life itself; for, though Mr. Pearson, in all his practice, may never have witnessed a fatal case of the disease, the experience of others has furnished a sad reverse. Nor should it be objected, that, compared with other complaints, this is of unfrequent occurrence, and thence concluded that its treatment is of little moment. Were the proportion it bears still more inconsiderable than it has hitherto been known to observe, too great solicitude could not be discovered in the invention of remedies to diminish its severity, or to shorten its duration; as no particular temperament is exempted from its attacks, and its victims may be those whose lives are the most valuable.

During the primary or eruptive fever, the most distressing

* Obs. p. 177.

symptom, in both the simple-febrile and malignant species, is the morbid accumulation of heat. This, though at first only a consequence of febrile derangement, becomes itself the cause of irritation, the support of fresh excitement, and the source of new distress. The continuance of excessive heat is here soon followed by debility, gangrene of the surface, and putrid reabsorption; to which finally supervene diarrhœa, defection of the mental faculties, and death. If these positions be just; if the symptoms in the desquamatory stage be mild or otherwise, in proportion to the increase of temperature at the commencement, it follows very directly, that the early reduction of the morbid heat will greatly ameliorate, if not totally prevent, the formidable effects of the secondary fever. Whoever views in this light the circumstances of the disease, will have little hesitation in adopting the means most likely to ensure the abatement of excessive heat in the first instance; and to this the cold affusion seems admirably adapted. To some this practice may appear hazardous; and as yet, indeed, no proofs of its efficacy in this disease have been supplied by experience: it must, nevertheless, be acknowledged, that its utility may be inferred by induction, and supported by analogy *.

Tepid bathing has been found extremely beneficial in this disease. To ensure, however, the full advantages resulting from the practice, the remedy must be considered as serviceable, only on the principle of reducing the increased temperature. The application must, therefore, be repeated, not at stated intervals, but as often as the accumulation of heat requires diminution; and, used with this intention, I am persuaded that the duration of the disease will be shortened, and its severity, in most instances, prevented.

* See Dr. Ord's and Mr. Nagle's Letters to Dr. Currie (Medical Reports, vol. ii. p. 141 and 201.)—See also Dr. Chisholm's Essay on the Pestilential Fever of the West Indies, vol. i. p. 279 and 295.—Dr. Rush on the Yellow Fever, p. 235.—and Accounts, by Drs. Seldon and Whitehead, of same fever, Medical and Physical Journal, vol. x. p. 272.

But, besides the advantages to be derived from tepid immersion, in the eruptive stage, where its utility is clearly referable to its effects on the animal temperature, there are other satisfactory reasons for the employment of it, when the disease discovers those distressing appearances, which sometimes mark its termination. These are well expressed by Dr. Saunders, in the following terms: "Another very important use of the warm bath is, in those herpetic eruptions, where there appears a great deficiency of perspirability in the skin; when it cracks, and leaves deep and painful fissures, which discharge a thin serous fluid; or else, where there is a constant desquamation of the cuticle in dry branny scales. These complaints, however, require only a low temperature of the warm bath, so as to be merely relaxing, and not rising to any degree of stimulus from heat *." These observations of Dr. Saunders, respecting the temperature of the bath, should be carefully attended to; as Dr. Spens has related a case, in which tepid immersion was tried, in the desquamatory stage, with seeming relief to the patient, but was not again employed, as it nearly produced syncope †.

I am not aware that blood-letting has been practised in this disease; and few cases, indeed, seem to require the use of the lancet. The pectoral symptoms, though often severe, yield, in general, to the steady use of purgatives; and, not unfrequently, to the exhibition of acidulated diluents. When the pulmonary affection gives way during the employment of the latter class of medicines, the secretion of urine is usually observed to be considerably augmented;

* Treatise on Mineral Waters, p. 433.

† It is absolutely necessary, that the bath-room should, in all venereal hospitals, be contiguous to the wards allotted to this, and other effects of mercury. Where this is impracticable, slipper-baths, which can be moved to the bedside of the patient, should always be employed. From inadvertence to this circumstance, though apparently of little moment, I have occasionally witnessed effects far different from those, for which the remedy was directed.

while much abatement of the other febrile symptoms is, at the same time, experienced *. The knowledge of this fact will lead, perhaps, to a more general employment of diuretic medicines, of which class the *Digitalis purpurea* will be found the most useful. But, to ensure the effects of the fox-glove, it has been found necessary to reduce the force of arterial action previous to its exhibition; and, when the pectoral symptoms assume any extraordinary degree of violence, and are accompanied with a hard and strong pulse, blood-letting should not be omitted. In one fatal instance, which came within my own observation, this remedy was strongly indicated; but, through a vain fear of producing debility, was avoided. Such as cannot conquer the influence of theory, with respect to this remedy, should, at least, make trial of leeches, or cupping to the chest, which, particularly if followed by a diligent application of blisters, might probably supersede the necessity of general blood-letting. It need scarcely be observed, that the use of blisters should be confined to the eruptive stage, and by no means extended to the period of desquamation, when the diseased state of the surface forbids their application †.

The uses of emetics in this complaint are not yet sufficiently determined. In those cases which came within my observation,

* Dr. Ferriar has noticed, in his Medical Histories, the good effects of diuretic medicines in diseases of the chest.

† From an apprehension of the blistered parts falling into a state of mortification, Dr. M'Mullin disapproves of my advice relative to epispastic applications in this disease. As it is probable that this author's fears are occasioned by an assertion of Dr. Moriarty, by which others may be also misled, it may be proper here to advert to the case, which appears to be its only foundation. Upon application to my friend, Dr. Huson Bigger, Deputy Inspector General of Hospitals at Cork, for a copy of the history which had been furnished to Dr. Moriarty, I discovered that, unfortunately, none had been preserved. Dr. Bigger, however, has authorized me to contradict the bearing which has been affixed to his detail: he is even doubtful if a blister had been at all applied; the only remarkable circumstance which he remembers in the case, being the recurrence of the eruption twice from the exhibition of an opiate.

they were very seldom indicated; and, when used, produced no apparent advantage. Indeed the circumstance, so particularly noticed by Mr. Pearson and myself, of the head and stomach remaining disengaged, except during the striking out of the eruption, would seem to render the exhibition of emetics unnecessary; and it does not appear that Dr. Spens employed them in any of the cases which he has detailed. Some, however, may be inclined to prescribe them at the commencement, with the views of diminishing the morbid structure of the surface, and of relieving the soreness of the throat and fauces; and both intentions may sometimes, perhaps, be fulfilled by their administration.

Subsequent experience has not induced me to alter the opinion I formerly advanced, respecting the use of purgatives in the eruptive stage of this disease: on the contrary, I think and am convinced that, in conjunction with frequent immersion, they form the most certain means of abating excessive heat, which is the sure precursor of an aggravated and protracted disorder. Those, who dread from their exhibition the striking in of the eruption, or talk of the bowels being readily affected from slight causes, prejudge from theory, and magnify their prejudices into conclusive evidence against a practice of which experience has already shown the value. During the eruptive stage, I have never observed the bowels to be peculiarly irritable, one case only excepted; and, if diarrhoea supervene in the desquamatory stage, that symptom should then be considered as the effect of re-absorption from the surface of a putrid exudation, whose formation an early abatement of the primary fever, by purgatives, would most likely prevent.

The choice of the purgative medicines most proper to be employed must, in a great measure, be confided to the judgment of the practitioner. My friend Mr. Crampton prefers the pulv. jalapæ. comp. to the neutral salts; and, I apprehend, his partiality to that preparation is attributable to the greater certainty of its operation. Dr. Spens gave, in one case, a drachm of the lenitive

electuary with an equal quantity of sublimed sulphur, with very good effects; and afterwards, to remove œdema of the lower extremities, a drachm of the super-tartrate of potass three times a day. This latter medicine seems well adapted to this disease; as, besides its purgative effects, its well-known diuretic power stimulates the kidneys to an increased secretion of urine: a circumstance which, as before observed, seldom fails of relieving the pectoral symptoms, and of abating the fever. But, mercurial purgatives alone excepted, those in general request may be considered useful without distinction, if employed so as merely to produce the expulsion of the contents of the bowels; and those, who would make the fear of inducing debility a plea against their exhibition, when used under this limitation, I take the liberty to refer to Dr. Hamilton's excellent "Observations on the Utility and Administration of purgative Medicines," where such effect is most clearly disproved, not by theoretic reasoning, but by the experience of a long and very successful practice.

Most of the acids in common use have been found highly serviceable in relieving thirst, and correcting putrescency. They are seldom admissible, however, in the treatment of the secondary fever, unless combined with opium, as diarrhœa is commonly present. When the absence of that symptom will permit their exhibition in the desquamatory stage, the oxy-muriatic acid, being the most highly antiseptic, should be preferred. This preparation is extremely liable to decomposition from exposure either to light or air; and, when decomposed, may produce very unpleasant effects on the stomach and bowels. Previous to administration, therefore, its purity should be carefully attested *.

* The following method of preparing the oxy-muriatic acid by Mr. W. Allen, I take the liberty of transcribing from Dr. Willan's account of the Scarlatina (Cut. Dis. Vol. i. p. 361.) "The oxy-muriatic acid should contain as much of the gas, as water can absorb under the common pressure of the atmosphere, and at a temperature from 50° to 60°. To a tubulated retort adapt a quilled receiver, connected with

Until purgatives have been exhibited, opiates will be found rather hurtful than otherwise. On this subject Mr. Benjamin Bell has observed: "By a proper exhibition of opiates, we secure rest during the night. In some instances, however, we are obliged to avoid the use of opiates; for, although they may answer the purpose of procuring sleep, they tend evidently to increase the heat and itchings of the eruption. We find, indeed, that in some constitutions, opium excites an uneasy itchy sensation over the whole body, even where no eruption has previously taken place; and it is, perhaps, in such patients only that it cannot be employed in the treatment of this eruption *."—Mr. Pearson says, "sometimes opium mixed with camphire, or with Hoffman's anodyne liquor, will have a better effect than when it is given alone †." At the commencement, I am of opinion, opium should be administered with caution, and only in conjunction with medicines which may correct its constipating effects: but, in the desquamatory stage, it may be exhibited more freely, as it then forms one of the most certain means of allaying irritation; and, by inducing sleep, of affording a temporary suspension of misery almost insupportable.

The almost uniform aggravation of the pectoral symptoms, which attends the administration of the cinchona in every stage of this complaint, prevents the attainment of those advantages which

the three bottles of Woolf's apparatus, each bottle being half filled with water. The retort is to be charged with three parts of muriatic acid, and one part of the black oxide of manganese in powder: all the junctures must be closely luted: a very gentle heat from a lamp will be sufficient to expel the oxy-muriatic gas: much heat should be carefully avoided. All the common muriatic gas will be arrested by the water in the first bottle. The oxy-muriatic is contained in the second and third bottles. By a similar process this gas may be obtained from the oxygenated muriate of potash, and muriatic acid: but it cannot be correctly prepared otherwise than by distillation. When litmus paper is plunged in the true oxy-muriatic acid, it is deprived of colour: but, if common muriatic acid be present, the paper will instantly receive a red tinge, and thus ascertain that the preparation is unfit for medical use."

* Treatise on the Gonorrhœa Virulenta, and Lues Ven. Vol. ii. p. 229.

† Observations, p. 178.

its powerfully tonic and antiseptic qualities usually produce. The following remarks on the use of the bark, in the treatment of continued fevers in general, are exceedingly applicable to this disease : " We have been witness, in several instances," Dr. Pearson observes, " to a very great aggravation of symptoms, in consequence of a free exhibition of the chicona in the early period of fevers of a continued type ;—of its exhibition at a time when the circulating system has been in a state of too much action, when the skin has been parched, the tongue dry and foul, and the urine high-coloured, and without sediment. Under such circumstances of continued fever, we have known the Peruvian bark, in a much less dose than that mentioned by Dr. Heberden, to produce a very injurious effect. In fact it should always be kept back in those fevers (except where the marks of the septic conditions appear at the beginning) until the inordinate arterial movements and increased heat shall have been considerably abated, and the stomach and intestinal canal duly freed from their impurities. This is a business of some days ; and when we have proceeded so far, camphorated and opiate medicines will often answer better even at this period than the Peruvian drug : but afterwards, when the febrile action is nearly spent, when the heat of the body is not above the natural temperature, when the skin is observed to be soft, the tongue moist, and in part cleared of its morbid covering, then the cinchona may be thrown in with the best effect *."

When the disease proceeds to purulent desquamation, the bark might be considered as more appropriate and useful : but the general presence of diarrhœa, and the oppression and anxiety about the præcordia, which its use, even at that period occasions, conspire to deter from its exhibition. Some practitioners, notwithstanding, may be inclined to make trial of the cinchona ; and such will be

* See Dr. Pearson's Practical Synopsis of the Materia Alimentaria and Materia Medica, p. 371.—Compare Dr. Blane's Observations on Diseases of Seamen, p. 371, 3d edit.

less likely to be frustrated in their hopes from that drug, by employing those preparations which contain least of its resinous quality, and combining with them opiates and aromatics, to prevent diarrhœa, and facilitate their digestion *.

As an excellent substitute, however, for the bark, wine may be recommended with confidence. In fact, when the disease is protracted to any considerable length, when the exudation from the surface is profuse, or when diarrhœa, a most formidable symptom, supervenes, wine must be considered as the chief dependance; and, at that period, light nourishing diet should also be constantly supplied. It is only in the desquamatory stage that the system requires such supports: but they then form the most proper remedies, and merit all the encomiums, which the quaint yet forcible language of Huxham has bestowed upon them: "Indeed as these fevers very often run out to a great length of time, supporting drinks and diet are necessary, without which the patients certainly sink under them. In this view, and in those above-mentioned, (the power of counteracting putrescency) I cannot but recommend a generous *red wine* as a most noble, natural, subastringent cordial, and perhaps art can scarce supply a better.—It is not as to these only; but in many other things, that we seek from art, what all-bountiful nature most readily, and as effectually, offers us, had we diligence and sagacity enough to observe, and make use of them. And I cannot but here take notice, that I think the dietetic part of medicines is not so much studied as it deserves. I am sure it is the more natural way of cure, though less pompous indeed than alexipharmic bolus, febrifuge draught, and cordial julep †."

* Dr. Lind remarks, that the effects of the bark are more conspicuous when conjoined with wine or spirits. This may seem to militate with the opinion advanced above, as it is upon the resinous quality of the drug that those liquors may be supposed more immediately to act. In the Hydrargyria, however, the cold watery infusion, with a small addition of the compound tincture, has been found the most appropriate and useful form. See Lind on Climates, p. 330, 6th edit.

† Essay on Fevers, p. 123 and 124.

In the two cases, in which abscesses were formed in various parts of the body, their maturation was promoted by emollient poultices. Both those cases terminated favourably; that practice may, therefore, be considered, as most proper. It seems necessary to add, that while tumours of this kind proceed to suppuration, the system should be carefully supported by wine and bark, if nothing intervene to forbid the exhibition of the latter medicine.

As to the most proper external applications in the desquamatory stage, practitioners have varied in their opinions. Cleanliness is with some the only object: but others have, with much justice, extended their views to the prevention of re-absorption from the surface, and to the generation of a new cuticle. In addition to frequent warm bathing or gentle tepid ablution, the application of absorbent powders will be found useful; and finely levigated carbon. zinc. imp. pp. and meal, separate, or in a combined form, may be employed with good effect for this purpose.

Having witnessed very disagreeable consequences from the application of certain preparations of lead in this disease, I must deprecate the use of it in any shape. The advantages resulting from it, as an external remedy, are more than counterbalanced by the probable evils attending its absorption into the system: for, while the sedative effects of that mineral are communicable even through the medium of the lungs, the direct application of it to a large exposed surface must surely be a hazardous practice*.

* See an account of the disease, called MILL-REEK, by the miners at Leadhills, in a letter from Mr. James Wilson, surgeon at Durrisdale, to Alexander Monro, P. A. Ed. Ess. and Obs. Phys. and Lit. Vol. i. p. 459.—See also Clutterbuck on the Poison of Lead.—Observations and Experiments on the Poison of Lead, by Thomas Percival, M.D. F.R.S. and S.A. and Medical Commentaries, vol. iii. for Remarks by the same.

Dr. Mead supposes that the noxious quality of lead depends on its oxidation; and relates, that he was informed by a physician of eminence, “that he had workmen who had, for many years, laboured under him in casting new metal, and had never suffered in their health by it.” See Mead’s Medical Works, 4th edit. p. 112.

For the generation of a new cuticle, Dr. Spens recommends the linimentum aq. calcis; and, as far as my observation extends, it is the best application.

Sometimes, when the febrile irritation has subsided, symptoms of lues, which have remained stationary, or have recurred, demand the use of mercury. In some, but not in all such cases, it has been employed without any aggravation of the external disorder; while, in a few instances, the affection of the surface even appeared to be relieved by its exhibition. This circumstance, however, should not influence to the use of mercury, while fever exists; nor is it fair to insist on it as an argument that the cutaneous affection was not originally a consequence of the employment of that mineral: as it would be easy to show that diseases of the skin often degenerate; and as such degeneracy will explain any difficulty which may arise respecting the circumstances of their treatment.

In the case of Donaldson, related by Dr. Spens, mercury was prescribed, though the effects of Hydrargyria remained; "and," the Doctor says, "from whatever cause it proceeded, the disease of the skin certainly decreased more quickly from that period." The success which followed that practice, in the instance just quoted, induced that physician to try it in another. This patient's case has been related, in the Doctor's own words, in a former part of this volume; and the history of it is thus concluded: "He had, on admission, an open bubo in his left groin; and after considerable abatement of the Hydrargyria and improvement of his general health, I gave him a mercurial pill, night and morning, during which the sore in his groin soon healed, without any aggravation of the affection of the skin."

If the observations made by Mr. Pearson, relative to the use of mercury during the presence of the eruption, were intended to be confined to cases such as those now mentioned, I have no hesitation in according with the opinion of that intelligent and respectable writer *.

* Observations, &c. p. 173.

A P P E N D I X.

APPENDIX.

IN the preceding history of the disease now first denominated "Hydrargyria," I have endeavoured to omit all irrelevant matter, and to condense all the information on the complaint and its analogies, which my own experience and the observations of others have supplied. The particular facts, however, which have furnished materials for the foregoing description, have been purposely reserved for this place, together with a few interesting communications from respectable and intelligent practitioners.

1. It was observed, when speaking of the circumstances favouring the production of Hydrargyria, that peculiarity of habit, termed "Idiosyncrasy," is, at times, to be considered as the predisposing cause of the disease. This is well exemplified in the subsequent cases of two sisters, who were affected with the complaint, at the same time, in the Dublin Lock Hospital.

CASES I. AND II.

BRIDGET STAPLETON, aged 30, and **Mary Cavanagh**, aged 26, both married women, and previously healthy, applied for admission at the hospital on the 4th of May, 1804. They were both affected with chancrous excoriations of the nipples of the breasts,

and both received the complaint by suckling a diseased infant, whom the latter had been hired to nurse. Before they applied at the Lock Hospital for relief, they had received, as externs, from another Infirmary, a solution of the oxy-muriate of mercury, which produced slight febrile irritation, and efflorescence of the skin. This circumstance they unfortunately concealed till the complaint had been re-produced by frictions of the camphorated ointment of mercury*. They had each rubbed but three drachms, when the eruption re-appeared with great general excitement, and much cutaneous distress.

After a few days the eruption disappeared from Bridget Stapleton, and was followed by a slight scurfy desquamation. She remained, from necessity, in the mercurial ward for some time after: but, though she had a severe cough, with frequent attacks of fever, and occasional appearances of efflorescence on the surface, it was not till the 1st of June following that a recurrence of the disease was fatally confirmed. For some days she laboured under the oppression of the fever, with a burning surface, a hard cough, and a great sense of weight about the præcordia. On the 6th, desquamation of the cuticle commenced on the arms and thighs, and was preceded by soreness of the throat and fauces. The exudation, which commenced on the 8th, daily became more profuse and acrimonious till the 12th, when it was intolerably

* The quantity of camphor, which enters into the composition of the camphorated mercurial ointment of the Dublin Lock Hospital, is certainly much too great, not less than two scruples of camphor being found in every ounce of the weaker ointment of mercury. This is a larger proportion than can be necessary for the purpose for which it is intended, and which I take to be the promotion of absorption. I must also deprecate the indiscriminate use of it for that purpose; for, if camphor be only employed to facilitate the absorption of the mineral with which it is combined, no benefit can result from its use, where the action of the cutaneous absorbents is not unusually languid. Many cases of Hydrargyria, I have good reason to think, have arisen from a too rapid absorption of the metal: whatever tends, therefore, to accelerate that action, must be a cause of the disease.

fetid. About this period also, the tongue became parched and furred, and was with difficulty put out. Severe tremors of the limbs were experienced, with extreme debility. On the 22d, low delirium came on; and the body presented a most disgusting appearance. In this state she languished till the 2d of July.

The disease in the other sister proceeded regularly from the 6th of May, the day on which the eruption first appeared in the hospital. I shall detail minutely the circumstances of this case, as it was the worst which I have seen that terminated favourably, and as many interesting particulars occurred during its progress which deserve to be recorded.

The eruption commenced upon the arms and hands, and rapidly extended over the entire surface of the body. It resembled very closely the efflorescence in Erysipelas, but was rather darker, and less uniform in its colour. There was much tumefaction of the surface; and large vesications immediately preceded desquamation. On the 10th, the cuticle had separated in many places, as the arms, thighs, and generally from the anterior parts of the body. A drawing of the appearances of the arm was this day executed, and forms the subject of the third plate which illustrates this volume. I do not recollect to have ever beheld so miserable and affecting a spectacle as the patient at this period exhibited. The face was swollen, and disfigured by deep cracks or fissures, through which an ichorous matter exuded. The eyes were closed, and irritated by the same corrosive discharge which continually flowed into them; and even the slightest effort to open the mouth for the purpose of receiving nourishment excited distress. From many places the cuticle was partially abraded: in others, though it had been separated, adhesions to the tender surface underneath ensued, from the drying of the exuding matter; while, on some parts, where the discharge was copious, thick, and exposed, incrustations were rapidly formed, and became firmly attached.

The severity of the accompanying symptoms corresponded with that of the external appearances. Pulse 110, full and hard : heat of skin intense : tongue foul, but moist : thirst urgent : cough hard, with much oppression at chest : urine scanty, and dark-coloured almost as blood.

12th. An obvious change has taken place since the last report. The exudation is profuse and insupportably fetid. The urine and fæces are passed involuntarily. The pulse is extremely frequent and irregular. Much oppression about the præcordia continues.

14th. There is this day an apparent amendment of symptoms. She can now retain both fæces and urine. Towards evening she expressed a great desire for animal food, and ate greedily a small portion of boiled mutton. This was followed by convulsions ; and, next day, diarrhœa again came on, accompanied with low delirium, frequent chills, tremors of the limbs, and severe oppression at chest. The cuticle is separating in large pieces from the hands and feet without any discharge : but from the breast, arms, and thighs, the exudation is copious and fetid as before.

16th. The throat is this day distressingly sore ; and there is much pain of the chest. Cough still severe. Delirium and diarrhœa have ceased.

17th. There is much hemorrhage from the throat and fauces, which are still very sore. The blood is not frothed, but flows without any exertion during the intervals of coughing. This hemorrhagy continued for ten days ; and, in the meantime, desquamation proceeded over the posterior parts of the body.

25th. There is hemorrhage from the back, which is so sore that she is obliged to lie almost continually on her face. The debility and emaciation are extreme, so that dissolution is hourly expected.

28th. The hemorrhage has ceased. The exudation is less fetid, and is diminished in quantity. She expresses a great desire for food, which is ordered to be supplied, unceasingly, in very small quantities.

June 2d. The desquamation is nearly completed over the entire body : but the cuticle is again beginning to separate from the arms and thighs. All the venereal symptoms have disappeared.

This patient could not be considered as free from the complaint till July, by which time the scarf-skin had separated, and was renewed five different times. The nails of the fingers and toes separated from their attachments, and were succeeded by others no way deformed in appearance.

Although palliative remedies were occasionally prescribed, such as gargles of infusion of red roses, and cough mixtures, wine was the medicine to which the treatment of this case was, almost entirely, confided. She commenced the use of it on the 12th, and consumed nearly a bottle daily till the 28th, when she began to take other nutriment ; and the wine was, in consequence, diminished.

In cases like that just detailed, wine should form the principal, if not the sole dependance ; and, if not less generously administered, would, perhaps, in other instances, be not less remarkably useful.

CASE III.

FRANCIS M'ILROY, aged 10, took three grains of the sub-muriate of mercury, as a purgative for a bilious affection, on the evening of the 29th of April, 1805. The medicine had not the desired effect : but, next morning, his father came in much alarm to request me to see the boy without delay, as, in the course of the night, his skin became hot and itchy, and was covered with a red rash. Very minute vesicles were, upon a close inspection, observable at first : but, on examination the day after, they could not be discovered. A warm bath was prescribed ; and he took at bedtime fifteen drops of antimonial wine. No trace of eruption could be found on the 2d of June ; and there was no desquamation of the cuticle. A

similar quantity produced, on the 10th of July following, similar effects.

The very small proportion of mercury which had been taken each time, led me to inquire from the boy's father if he had himself ever used that mineral, or had observed any remarkable circumstance attending its exhibition. He acknowledged that he had taken it at Edinburgh, about twenty years before, and was near dying. All the skin, he said, came off his body; and the doctors gave him over, and would not order him any more medicine. To their great surprise, however, he recovered.

2. The preceding are striking illustrations of the fact, that the production of the disease depends, in some cases, on Idiosyncrasy; or such peculiarity of habit as predisposes to the affection. It is not less certain, however, that exposure to cold and moisture, while the system is under the influence of mercury, will produce such a state of the skin, and, probably, of the general habit, as is necessary to the formation of the disease. Of this I could adduce many examples from my own experience: but the following, it is presumed, will be deemed sufficient.

CASE IV.

E. MILWARD, a gunner, aged 22, began to take, by my direction, for an herpetic affection of the arms, two grains of calomel, and one of antimonial powder, night and morning, on the 12th of March, 1807. At the end of three days, (by which time he had taken only twelve grains of calomel) he was confined, for some irregularity of conduct, in a cold guard-house, where he was detained till the 18th, when he complained of headache, and sickness at stomach, with a severe smarting itchiness of the back. He was removed to the Ordnance Hospital at Spike Island, then under my charge.

On examination, the eruption, as described in Pl. II., but not so thickly diffused as there represented, was discovered, attended with vesicles of considerable magnitude, which the attrition of his clothes had ruptured. On the 26th, all appearance of the eruption had vanished: but he complained of much pain in the lumbar region, which was removed by the application of the camphor liniment, as directed by Dr. Ferriar. (Med. Hist. Vol. I.) On the 29th, this patient resumed the use of the calomel, and continued to take it for three weeks without any inconvenience.

CASE V.

Communicated by Dr. John Mitchell, of Edinburgh.

“A YOUTH, aged 16, was admitted into the Infirmary with a miliary rash upon the inside of the thighs and legs, and lower part of the abdomen. A swelling in the groin had arisen after venereal intercourse, for the removal of which he had anointed his thighs, two or three nights, with mercurial ointment, when the rash suddenly appeared. It did not in the least resemble those crops of inflamed pimples or pustules frequently produced by mercurial frictions. Neither was it confined to the places where the friction had been applied. He was a boy from among the lower ranks in life; and, notwithstanding that the severity of winter was setting in, while he applied the mercury, he freely exposed himself, almost in rags, and bare-footed, to the inclemency of the weather. This miliary rash disappeared in two or three days after his admission into the Infirmary; and he went through a regular course of mercury without any thing unusual happening.”

CASE VI.

Communicated by Dr. John Mitchell, of Edinburgh.

" I HAD, within these few days *, under my care, another case of it, arising from exposure to cold and wet during the use of mercury. In this there were the papulæ, the itchiness, very little of the erysipelatous suffusion, or the rawness of the skin, but a good deal of moisture on the affected parts resembling perspiration, and of a peculiar odour.

" The patient, by strict confinement to the house, recovered in a few days, without the use of any medicine but laxatives, which the state of his bowels required; nor did the subsequent use of mercury, which was necessary to him, induce a relapse. I kept him, however, strictly confined to the house."

3. When the production of the disease depends on the operation of cold, its occurrence is generally delayed for a longer period than where its formation is owing to idiosyncrasy; and, oftentimes, the use of mercury can be resumed, without danger of relapse, where exposure to cold appears to have remotely assisted in exciting the complaint. But it is not always that so little hazard is incurred by the subsequent use of mercury, even where the production of the disease is attributable to such exposure. This will appear from the following case, noted by Dr. M'Mullin, and forwarded by the kindness of Dr. Duncan, junior, of Edinburgh.

CASE VII.

" DANIEL M'MANUS, a soldier, aged 35, was admitted into the hospital on the 26th of August, 1805, affected with a venereal bubo in the left groin, a hard, inflamed, and painful swelling on the superior

* 16th September, 1809.

part of the corpus cavernosum penis, together with chancres under the prepuce, and a slight degree of phymosis. Five weeks had elapsed since the commencement of these complaints; and from strict inquiry it appears, that, previous to admission, he had, unknown to the surgeon of his regiment, taken sixteen mercurial pills, and rubbed in a quantity of mercurial ointment, supposed to be more than an ounce. His bed in the barrack-room being situated near a window, exposed him to frequent currents of cold air. He was at length compelled to make known his situation to the surgeon, from his becoming unable to attend regimental duty in consequence of being affected with febrile symptoms, attended with cough. On his admittance, an emollient poultice was ordered to be applied to the bubo, and a drachm of mercurial ointment to be rubbed in, morning and evening. This treatment was continued till the 31st, when the febrile symptoms, which had been more or less severe for some days, became considerably aggravated. The prostration of strength was so great as, at one time, to induce syncope, when employed in the mercurial frictions. On this day also he experienced much uneasiness from an incessant itchiness and increased heat of the skin, which, on further examination, appeared to have assumed, in many parts, a degree of redness more than natural. When visited the following day (September 1st), the entire trunk and extremities, except the legs, were covered with an eruption, which appeared in many places in the form of small papulæ slightly elevated, whilst other parts exhibited only a suffused redness, and less circumscribed. A number of minute vesicles were distinguishable on close inspection, and were interspersed among the papulæ. His thirst was urgent, the tongue appeared white, and the belly was costive. Pulse 100.

“ On the 3d of September, a desquamation of the cuticle, in the form of branny scales, appeared in some parts; and the vesicles were more numerous. The continued itchiness, with which he is

troubled, causes him to rub the vesicles until they burst. They discharge a watery pellucid fluid in such quantity as to moisten the hand. On some places the eruption is papulous.

"4th. The febrile symptoms on this day were considerably abated; and the arms, which were very much affected the day before, now appear to be in a state of complete desquamation.

"The mercury had been discontinued from the first breaking out of the eruption in this patient; the disease went off by a slight desquamation; and he required few remedies, from the mildness with which it appeared. But when he had entirely recovered from this affection, and it was necessary to use more mercury for the primary disease, it produced febrile heat, nausea, sickness, and loss of appetite. Its use was repeatedly suspended, and recommenced: so that it was a very long time before he could use as much as was thought sufficient to obviate the recurrence of his venereal complaints *."

4. But a disposition to the disease, though produced by adventitious circumstances, may be established by habit. Of this the following is a well-marked instance.

CASE VIII.

Communicated by Dr. Mitchell.

"I WAS lately called to visit a patient in whom I met with a very peculiar idiosyncrasy, as well with respect to opium as to mercury. The patient is a middle-aged man, of a remarkably gouty disposition. In prescribing for him, he very pointedly cautioned me against mercurial medicines and opium. The latter,

* Dr. M'M. observes, that a drawing, exhibiting the papulous appearance of the eruption at the commencement of the disease, was taken, which I regret that I was not so fortunate as to receive.

immediately after being taken, always produces in him great pain at the pit of the stomach, an intermitting pulse, with an universal and deadly coldness throughout the body, and cold sweats, inso-much that life seems in jeopardy, and he can only be recovered by the application of warm fomentations to the epigastric region. As to mercury, it never fails to induce an attack of the mercurial disease. He had occasion, when about twenty years of age, to use that medicine, in the forms of pills and unction, for some venereal symptoms. While using it, he imprudently went a hunting, and was thus exposed to wet and cold. A severe and long continued attack of the mercurial disease thereupon ensued. Six years thereafter, the same complaint was brought on by a single dose of Ching's Worm Lozenges; and, since that time, he has again twice experienced it from the exhibition of a purgative, in which there was a proportion of calomel.

“ In neither of these last times, however, was the disease so violent, or of so long continuance, as at first. Previous to the first attack, he had frequently used mercury without any bad effect following: but, to the best of his knowledge, he has never afterwards taken the smallest quantity that an attack of the disease did not supervene. This case exhibits a well-marked instance of a disposition to disease being generated in the body; and it also shews the power of habit on the system.”

5. It is a question of considerable interest; but one which, I confess, my own experience does not enable me at present to answer, if those predisposed to Hydrargyria be in general liable to similar eruptions from other causes beside mercury. In one instance, related by Dr. Bigger, the eruption was re-produced twice, at distant intervals, by opium; and it is probable that future observation will discover that Hydrargyria may dispose the system to cutaneous excitement, of close resemblance to the efflorescence which distinguishes that disease, upon the exhibition of other

irritants. Were this conjecture once confirmed, the production of those anomalous cases adverted to in a former part of this work, and which acknowledge no obvious cause, might readily be accounted for. Thus, if Hydrargyria be evidently the consequence of imprudent exposure to cold, while the system is under the influence of mercury, such is the force of habit, that cold, even at a distant period, may produce an affection somewhat similar, though no mercury be afterwards exhibited. The subsequent case in some degree exemplifies this position.

CASE IX.

“ JAMES SAUNDERS, aged 18, and previously healthy, was admitted into the Dublin Lock Hospital on the 16th of June, 1804, with the mercurial eruption on the breast, arms, abdomen, and the inside of the thighs. He had used eight drachms of the camphorated mercurial ointment, as an extern of the hospital, before the disease appeared; and, during the period of its exhibition, he was much exposed to wet and cold. There was but little fever; and the eruption terminated on the 19th in a scurfy desquamation, which was completed on the 25th of the same month. During the presence of the mercurial affection, chancres on the prepuce, and an incipient bubo in the left groin, with which he was admitted, had disappeared. On the 26th, however, the bubo was again discernible: but it was not deemed advisable to recur to mercury till some weeks had elapsed. In this interval (about the middle of July) he obtained leave to go out for a few hours; and, tempted by the heat of the weather, he bathed for about twenty minutes in the sea. Next day the eruption re-appeared, accompanied with shivering, nausea, headache, and heat of surface.

“ It may be satisfactory to add, that this patient had been, from his admission, confined to the convalescent ward, in which mercury is not employed; and that, about the end of July, he resumed the use of the mineral, in the form of unction, in a ward carefully

guarded against cold, and used some ounces without experiencing any return of the disease."

6. The subsequent letter from Mr. Frederick Detmer* is an illustration of the efficacy of the *lavatio frigida*, which from analogy I have ventured, in a prior part of this work, to recommend. It also suggests the consideration of some interesting questions, and contains an allusion to a circumstance, whose truth, if confirmed by future experience, will serve to account for certain phænomena at present unexplained.

" Fermoy Barracks, 18th December, 1809.

" SIR,

" I TAKE the earliest opportunity to communicate to you the particulars of the case I was mentioning to you, as far as I can collect from my journal and memory.

" The patient, James Connors, a private in the Leitrim Militia, was admitted into the regimental hospital at Ballinasloe, on account of an *ulcus* he had in the middle of the penis, suspected to be venereal, in the beginning of June last. After using a few drachms of the Ung. Hydrarg. fort. he was affected with strong symptoms of ptyalism, when the frictions were discontinued. The *ulcus penis* not healing in the course of three weeks, made me resume the mercurial frictions on the inside of the thighs. After the second friction, the patient complained of a burning heat in his thighs, which, by inspection, I found covered with innumerable small vesicles, with tumefaction, and dark rosy colour of the skin. Not being then acquainted with your interesting observations respecting this peculiar eruption, I took it to be a mere local affection, occasioned by a too great sensibility of the skin, similar to that observed upon the application of sticking plaister in different people; and accordingly I had the parts affected washed clean with warm water and soap, and changed the place of friction to the arms.

* Assistant Surgeon to the Second German Heavy Dragoons.

But, on the second day, the eruption had much increased, and extended to the lower part of the abdomen, and over the penis. The vesicles appeared larger, and filled with yellowish fluid: the skin of a darker red. The patient complained of insufferable burning in the affected parts, was very restless, and had symptoms of fever. I now discontinued the mercury, ordered a gentle laxative, and had the parts affected with the eruption washed with a solution of acetite of lead (one drachm to a quart of water) several times a day. By these means the burning heat was soon allayed; and in three days all inflammation of the skin had subsided, the pustules were covered over with dry scurfs, and the skin desquamated in small furfuraceous scales.

“ The *ulcus penis* remaining nearly in the same state some weeks after this occurrence, calomel gr. j. with opium gr. ss. was given to the patient twice a day: but he seemed to have a natural antipathy against mercury: for, after a few doses, a violent diarrhoea, or rather dysentery, with continual discharge of blood, loss of appetite, and a quick pulse, succeeded, and required the use of opiates, camphor, colombo, and other remedies to stop. The dysentery lasted for ten or twelve days. The ulcer had been healing this time, and closed shortly after; and the patient was discharged from the hospital to join his regiment.

“ I could observe nothing in this patient predisposing to any disease. He was a strong and athletic man, and had never been ill with any complaint, but was strongly marked with the small-pox.

“ This case confirms, in some degree, the utility of cold ablution in the early periods of this disease, and induced me, therefore, to communicate it to you. As the result proved to be favourable, and no ill consequences followed the trial, I shall not hesitate to use the same application when another opportunity offers.

“ It is an interesting inquiry, whether in Hydrargyria the changing the preparation of mercury would produce the same

effect as in cases of ptyalism. It is an observation made by some of our (German) writers, and confirmed by my own experience, that ptyalism, after some duration, is checked, instead of being increased, by changing the preparation of mercury, though many other means had failed of that effect. I have myself seen salivation, effected by frictions with the blue ointment, cease, when, after a few days intermission of the ointment, calomel was given; and so on the reverse. In other cases I perceived the same effect, when the black oxide was given in salivation produced by calomel, or by the oxy-muriate of mercury. The latter experiment would seem to imply that milder preparations of mercury will produce less effect on the constitution after the use of the more acrid, and, therefore, would not be proper: but the urgency of the case often forces us upon those stronger preparations to alleviate the most distressing symptoms of lues; and, after this has been effected, we use the safer and milder preparations to establish the cure. And it is, beside, a most desirable object to remove an obstinate and violent salivation, as that symptom often retards the progress of the cure.

“ It would also be worth the ascertaining, whether this eruptive disease, named by you “ Hydrargyria,” appears co-incident with salivation, or serves as a substitute for it: as we see sometimes a violent diarrhoea arise from mere mercurial frictions in persons whose salivary glands are never affected by it. In the case related by me all three of these complaints were occasioned successively, as you will observe, and never co-existed.

“ It is natural to conclude, that a stimulus applied to a certain part will act first and most intensely on that part, and gradually on more distant parts, according to their tendency to become affected by such a stimulus. Thus calomel, for instance, sooner produces ptyalism, when rubbed to the inside of the mouth, than when received into the stomach. And would not analogy lead us to account for the more frequent production of Hydrargyria by

mercurial frictions, by supposing that the skin is affected, because it is the part to which the stimulus is applied, and is, in many cases, too irritable to bear the excitement.

" Children are seldom affected with Hydrargyria in comparison with adults; and it is a remarkable fact, that children will bear in general, without salivation being induced, a larger quantity of mercury, in proportion to their age, than adults.

" We also see venereal symptoms, suspended by salivation, recur when that symptom ceases. These are striking analogies between Ptyalism and Hydrargyria.

" It remains for me to apologize for the many blunders you will perceive in the orthography and style of the foregoing. Haste and too little knowledge of the language may plead my excuse. You will judge whether the case related merits a place in your work.

" I am, SIR,

" With much respect,

" Your most humble obedient servant,

" FREDERICK DETMER."

" To Dr. Geo. Alley."

" P. S. Within the last three weeks I have made several experiments in cases of ptyalism; and found that even resuming the use of the same preparation that caused salivation, after a short intermission, will cause the ptyalism to cease. This was observable even where the tongue was ulcerated, and the salivary secretion very profuse." F. D.

7. Although, in the case related by Mr. Detmer, salivation did not co-exist with the mercurial eruption, and though I have never seen ptyalism supervene after the Hydrargyria had been formed, yet, in many instances, they are present together, nor does the supervention of the cutaneous affection seem to have any influence

in diminishing the salivary secretion. Many analogies, however, are shewn to exist between Ptyalism and Hydrargyria, which may go to explain, in some measure, the circumstance of mercury being given in the latter affection with advantage, when the complaint had assumed a chronic form ; since the resumption of the mineral gives a check to salivation unaccompanied with fever.

8. The same may be said of the irritation of the surface in Hydrargyria, and the dysentery which mercury sometimes occasions. Between those affections a striking analogy exists. Differing but in their seat, they both acknowledge idiosyncrasy and exposure to cold as exciting causes ; and each is relieved by endeavouring to excite the other. A free state of the intestinal canal produces in Hydrargyria the best effects ; and every one conversant with practice is aware of the advantage resulting, in the mercurial dysentery, from promoting the perspiratory discharge. The continuance of the exhibition of mercury is alike prejudicial in both ; as is also the circumstance of breathing an atmosphere in which the minute particles of that mineral are suspended. In fact I am persuaded, when mercury gives origin to a dysenteric affection, the bowels are inflamed in a manner analogous to the state of the surface in Hydrargyria, allowing for the difference of structure ; and, if the dysentery be the more dangerous disease, that may be accounted for by recollecting the greater degree of sensibility which the viscera possess. The following is a remarkable instance of alternation between those two affections.

CASE X.

JOHN M'DONALD, a private in the 26th regiment of foot, was admitted into the General Hospital near Kilcullen, on the 18th of September, 1804, affected with chancres of the glas penis. When admitted, he had much ptyalism. On the 27th, he recommenced the use of mercury, and rubbed a drachm of the stronger

ointment (Ph. Lond.) every night till the 1st of October, when he complained of much sickness at stomach, with great pain of the lower belly, considerable discharge of blood at stool, a quick pulse, and hot skin.

He was ordered an antimonial emetic, and an anodyne at bed-time.

Oct. 2d. The pain is not so urgent; but his stools are still very frequent. The other symptoms continue the same.

Half an oz. of the sulphate of soda was directed to be taken every hour till it operated, and ten grains of pulv. ipecac. comp. at night.

Towards evening the purging and pain had entirely ceased: but the thighs and lower part of the abdomen were covered with a rose-coloured eruption, hot, and very itchy. He had also some oppression at chest.

An anodyne was prescribed at bed-time.

4th. The eruption continued till the evening of this day as vivid as before: but, about the same hour that the efflorescence appeared on the evening of the 2d, the pain of the bowels returned, accompanied with discharge of blood, and fever, as on the former occasion.

He was removed from the mercurial ward, a warm bath was ordered, and an anodyne at the hour of rest.

6th. The eruption has again made its appearance on the abdomen and thighs, and also on the breast and arms. There is great remission of the dysenteric symptoms.

No retrocession of eruption again took place; nor did any affection of the bowels recur. On the 8th, a scurfy desquamation of the cuticle commenced, and was completed on the 16th. He was not removed to the mercurial ward till upwards of a fortnight after; and the resumption of the mineral produced no unpleasant consequences.

THE two following histories from Dr. Mitchell, though they do not strictly apply to the subject of the present volume, are yet in a peculiar degree interesting. Although considered by their reporter as analogies of the complaint described in the preceding pages, I think they will rather appear to resemble other diseases already very particularly noticed in a work to which I have often adverted. The former exhibits a very formidable instance of the *Psoriasis inveterata*, which sometimes, Dr. Willan observes, succeeds to that species which he terms "*diffusa*;" and that complaint is produced in most instances, according to the affirmation of Dr. Falconer, by the sudden application of cold when the body is heated. In the latter case, the nature of the disease is still more apparent, being, as I think, that modification of *Strophulus confertus*, which Dr. Willan has noticed (*Cut. Dis.* vol. i. p. 28.) aggravated by the circumstance of the infant being kept in a squalid condition.

19th September, 1805. Mr. D—— L——, ætatis 24, an officer in the army, is affected throughout almost the entire body with an eruption of small pimples, or red papulæ, which, in some places, form themselves into distinct rings about the size of a sixpence. In other places they would seem to have run together, making the skin quite raw and red. This last circumstance has taken place particularly upon the lower part of the abdomen, upon the groins, scrotum, and penis, and upon almost the whole of the fore and inside of the thighs. The skin here is thickened, and the inguinal glands are enlarged. The same appearances are observed on the hams and calves of the legs, and also on each arm, for some way above and below the elbow-joint. The hairy scalp is thick of scales and thin scabs. In many of the affected parts of the joints there are large chops or fissures. From the inflamed skin a great discharge of matter oozes, and produces adhesion of his linen to the parts, causing exquisite pain. The inflamed parts are so tender

that he can hardly allow them to be touched; and are so itchy and painful during the night, that he scarcely enjoys any sleep. His general state of health is reduced: the tongue is foul; the pulse frequent and feeble; but his appetite is good; and the bowels are regular.

It is chiefly within this fortnight that the affection has become distressing. It began, however, six months ago, with rawness of the scrotum, which has ever since been more or less affected. He can impute the complaint to no cause except that of living too freely, and getting frequently wet on hunting parties. He has made use of some mercury internally, and bathed the affected parts with a solution of acetite of lead: but he derived no benefit from those remedies.

It is six years since he had any venereal complaint.

Illinantur partes affectæ sæpius in die linimento aquæ calcis.

*Capiat h. s. haustum ex laudani gut. .xxxvi. vini antimoni-
nalis gut. xxx.*

20th. He has had no sleep by reason of the itchiness, and feels himself to-day no better. The parts, however, do not look quite so tender and inflamed.

Contin. linim. aquæ calcis.

21st. He has been affected with almost constant cold shiverings, and feels himself to-day very feeble. The thighs are swelled, and so also are the feet; and he complains of voiding scarcely any urine. He is very thirsty; the pulse is quick and weak; but the bowels are regular. He passed, however, a much better night than the preceding, having slept tolerably well, and not having been troubled with the itchiness. The affected parts of the skin, though swelled, seem less inflamed, and are smoother; and some of the chops are healing.

Contin. linim. aquæ calcis.

22d. He has passed another good night; and the parts to-day

feel in general easier. The shiverings, however, with scarcity of urine and debility, continue.

Contin. linim. aquæ calcis.

Capt. pulv. cinchonæ offic. 3 ss. ter in die.

23d. He has passed a sleepless and distressing night; and to-day complains much of weakness, and the shiverings. The affection of the skin exhibits nearly the same appearances; but the right arm has become swelled, stiff, and particularly painful.

Dr. Monro, Senior, attended to-day in consultation. He had never seen a similar case, and confessed himself at a loss what to make of the present. He considered it, however, a complicated affection. The eruption on the hands bore some resemblance to itch; and the appearances on the body looked like lepra. He thought no active practice ought to be entered upon until we had, for a few days, looked on. In the meantime he thought that the patient should be confined to a low cooling diet, and, in other respects, observe the antiphlogistic regimen; while, chiefly as a placebo, he might take, twice a day, half a pint of the decoction of sarsaparilla. The application of the unguent. citrin. mit. was also advised to be tried upon the left arm.

26th. He has passed a much better night than usual. The arm, to which the citrine ointment has been applied, is very thick of crusts; and what of the skin can be seen assumes a puckered irregular appearance. Last night his legs were immersed in a tepid bath of the hepar sulphuris; and the rest of his body, except the left arm, were well bathed with the same solution. Occasionally during the night, when any part became itchy, it was anointed with the linimentum aquæ calcis. To-day the appearance of the whole skin is more favourable. The parts are less red and painful, and are free from itchiness. None of the limbs are swelled: but matter, forming thin scales or crusts, still exudes from them. His face, however, is a good deal swelled, particularly the eyelids, insomuch that the eyes are almost entirely shut up; and he has a

good deal of shivering. This shivering would seem particularly to precede the swelling and fullness that take place in any part of the body, and resembles, in this respect, Erysipelas. In consultation to-day with Dr. Monroe, it was agreed to continue the tepid bath of the *hepar sulphuris* to the whole body, except the left arm, to which, for the sake of experiment, the *unguent. citr.* should still be applied; and that the hands, the eruption on which resembled *psora*, should be rubbed with sulphur ointment. In all other respects he was to continue as before. Dr. Monroe expressed his opinion, that the complaint was a complication of herpes and itch.

29th. The left arm to-day looks exceedingly ill. It is very weak, much emaciated, and is painful in the fleshy parts about the shoulder.

1st October. His general health and appearance much better. The left arm still continues weak and wasted. He is ordered to bathe the left arm very frequently with a solution of the *hepar sulphuris*, and to use the *linim. aquæ calcis*.

3rd. For these two days past he has had a good deal of shivering, with much itchiness at night, and very copious exudation. There is a peculiar offensive smell: but the surface looks clean, nor is there any tumefaction. The left arm is improving in appearance: the matter from it is more viscous and adhesive than what exudes from the other parts of the body. He has much thirst; but the appetite is good, and the other functions are natural.

He is ordered to keep himself cool, and to bathe once a day with the view of cleanliness; to have his drink acidulated with elixir of vitriol; to take some Peruvian bark, and use a generous diet.

6th. He has felt much relief from the application of the *linimentum aquæ calcis* ordered the preceding day: but to-day the exudation from the whole body, even from the palms of the hands, has become very copious. He shivers almost constantly; and his thirst is incessant. The bowels, though he has a motion

daily, are much affected with flatulence; and there are symptoms of a disordered state of the primæ viæ. The following artificial mineral water ordered:

℞. Sodæ Tartarizatæ

Lixivæ Tartariz. sing. ʒ ij.

Salis Polychresti . . . ʒ ij.

Solve in aquæ fontanæ ʒ xvi.

Sumat ʒ ij ex aquæ fss. mane et vesperi.

The quantity of sal polychrest. was augmented to half an ounce on the 11th, as the mixture did not appear to be sufficiently aperient. He is bathed every night in a solution of hepar sulphuris with apparent benefit.

19th. There is little change. His itchiness is so urgent, that he is ordered to try the rubbing of some parts with sulphur ointment.

30th. His former symptoms have recurred with severity. In particular places there is copious exudation, in others the skin is covered with large scales. The itchiness, however, is not so distressing, so that he can enjoy tolerable rest at night. At his own request, he has begun to-day a trial of Spilsbury's antiscorbutic drops. All the other medicines are ordered to be intermitted, except an anodyne at bed-time.

28th November. Until within these ten or twelve days he has suffered, in a greater or less degree, the same train of symptoms that, in the course of the preceding reports, have been described. He has persevered in the use of Spilsbury's drops, beginning with five three times a day, and increasing each dose by two daily to thirty, which quantity he is now continuing with. He has taken one bottle of them, and begun a second. They seem sometimes, though seldom, to affect the bowels: but otherwise they shew no particular effect. He has every night had his anodyne draught: but the linimentum aquæ calcis has been laid aside as yielding no benefit.

He is now better in his general health, and in all other respects,

than hitherto. He has recovered strength, and can walk with ease and freedom across the room. There is no shivering, very little exudation, and a trifling degree of itchiness. The scales from the surface are thinner, smaller, and less numerous. The fissures at the joints are all nearly healed; and the hands, and some parts of the face, are covered with skin of almost a healthy appearance, being only somewhat rough, as if covered with a furfureous powder. The hair that is natural to several parts of the body, as the head, chin, eye-brows, pubes, (which had been entirely denuded of it) is again beginning to grow; and the tarsi, which were reddened, raw, and inverted outward, are regaining their healthy appearance. As yet, however, there are no eyelashes. The tongue is clean, and of a healthy aspect. His thirst is less, his appetite good, and the bowels are regular.

It is unnecessary to detail the almost daily reports made of this case, until its termination in April, 1806.

From the date of the last report, my patient got so well that he ventured to take an airing in a carriage. It was to this that I in a great measure attributed his relapse on the following day; viz. the 5th of December. This relapse shewed itself by a return of the itchiness, eruption, and exudation; and these symptoms were accompanied with great debility, frequency of pulse, and thirst. At the same time there were severe gripes, with tenesmus, and a mercurial fætor in his breath, which were ascribed to the antiscorbutic drops he had still continued to use, and which were, therefore, ordered to be laid aside.

The disease in its progress assumed a shape, if possible, more severe than ever; and the patient presented to the eye one of the most loathsome spectacles that could be conceived. His whole skin was more or less affected, and that in various ways, not only at various times, but at the same time. The itchiness, shiverings, swelling and fulness of the skin, exudation, and rawness, constantly distressed him. Such was the severity of the disease, and so uni-

versal and repeated were its attacks, that he had not a single hair upon his whole body. His nails could not be known as such from a thick irregular incrustation upon them. Those of the large toes, in particular, were about half an inch thick. Notwithstanding all this distress, his appetite continued throughout good; oftentimes, indeed, was voracious. Frequency of pulse, occasional thirst, and other symptoms of fever were present. He had never, however, any of the typhoid languor; and, indeed, the nature and degree of his febrile symptoms may be judged from this, that he was scarcely, even for one day, confined to bed.

In general he derived benefit from the exhibition of an anodyne at bed-time, the frequent application of the linim. aquæ calcis, and tepid bathing in the hepar-sulphurated solution. Laxatives were found necessary to remove costiveness. It should be mentioned that, in an advanced period, there was tenesmus, with griping and pain, accompanied by a sense of heat, and watery stools. This affection of the bowels was so little under the control of medicine, that I could not help suspecting it akin to that of the skin. Bark, nitrous acid, and a solution of the corrosive sublimate, with the decoction of mezerion, were successively tried. He seemed to derive most benefit from the two last; and their use, therefore, was persevered in for about two months, in which time he had taken of the former medicine about thirty grains. Saturnine solutions applied to the skin were productive of no manner of advantage: but, when the exudation had become very copious, the application of the zinc ointment was found useful in moderating it. An ointment composed of one drachm of the red precipitate of mercury, finely levigated to an ounce of simple ointment, had a wonderfully good effect in mending the appearance of the skin, when it was not so raw and tender that he could bear its application.

By the beginning of March the whole skin had regained its natural appearance, and the hair was nearly renewed on the various parts of the body. Except a frequent and troublesome cough, and

extreme debility, he ailed nothing. This cough resembled that which is described as taking place at the commencement of the mercurial disease: but in none of the several attacks of the complaint my patient sustained did any cough mark its commencement.

Scarcely had my patient recovered from the affection of the skin, when he complained of the same sensation in his mouth and internal nares, with febrile shiverings. The lining membranes of these parts were accordingly discovered to be similarly affected. Large quantities of watery fluid were distilled from the nostrils, and salivated from the mouth. By degrees this affection of the membrane extended backwards, while the more anterior parts first affected recovered. The larynx then became affected, inducing every symptom of the most severe croup. He had the difficult, wheezing, and noisy respiration, the brazen shrill voice, and ringing cough. Frequently the sense of tightness about the larynx was so great that instantaneous suffocation threatened.

The several remedies in croup were resorted to; and, while the more marked symptoms subsided, all the parts within the nostrils, mouth, and fauces, so far as could be seen, regained their natural appearance. But in no long time an affection of the breast supervened, assuming every appearance of phthisis pulmonalis. I had marked the pain in the larynx gradually extending downward in the direction of the trachea; and this, in a great measure, led me to view the affection of the breast, as arising from an affection of the bronchiæ, similar to that of the skin. Some practitioners, however, who occasionally visited my patient, entertained not the least doubt of the existence of phthisis pulmonalis; and, indeed, I must confess, when I considered his emaciation, and sweatings, particularly on the forehead, as well as his difficulty of breathing, the pains in various parts of his chest, and his greenish-coloured expectoration, I was sometimes staggered in my opinion.

I indulged, for some time, the hope that my patient would recover, the disease, as it were, wearing out itself: but his strength

was too much exhausted to allow me to see this hope realized. As he became weaker, the expectoration became more difficult, till a total suppression of it took place; and he died on the morning of the 2d of April.

It was peculiarly satisfactory to be permitted by his friends an inspection of the body. On laying open the thorax, the pleura lining it, as well as that covering the lungs, had the natural appearance. The lungs themselves to the feel were quite sound; and, on cutting into them, neither tubercles nor vomicæ could be discovered, but were healthy throughout in their parenchymatous substance. In the trachea, however, there was a gradual shade, as it were, of disease. Towards the upper parts, the membrane lining it had a remarkably healthy appearance; but, in its course downwards, it increased in redness, and other marks of inflammation, and was here and there covered with a yellowish scurfy substance. These increased marks of inflammation, accompanied with rawness, and an enlargement of the small vessels, extended into both branches of the trachea, and into the several ramifications of the bronchiæ, so far as they could be traced. A great quantity of greenish-coloured mucus, with small flakes in it, had been secreted from the internal surface of the raw and inflamed bronchiæ, and floated backwards and forwards in them. Upon seeing this it was matter of surprise how the patient could at all respire. The glands at the bifurcation of the trachea were also much enlarged.

All the viscera of the abdomen appeared in a sound state, except some portions of the intestines, which were slightly reddened and inflamed.

The other case occurred in an infant only eleven days old, whom, on the 5th October, 1808, (three weeks after the first appearance of the disease) I was desired to visit.

When I first saw the little patient, he cried almost incessantly,

and seemed to suffer great distress. The skin on the lower part of the abdomen, groins, upper part of the thighs, pubes, scrotum, and nates, as well as on the arms and legs, presented the same appearances as are mentioned in the preceding case. There were the chops and cracks in the joints, the scaly membranes and crusts, the rawness, redness, and adhesive exudation, with the peculiar factor. On the tender soles of the feet I particularly observed two or three distinct clusters of the eruption. He seemed also itchy: for his nurse mentioned that gently scratching him always pleased him, and stopped his crying. His appetite was very keen, as there was no satisfying him with the breast. His bowels, however, were much disordered, his stools being frequent, loose, black, and fetid: but, it was reported, his mouth always kept clean. He had not had any cough, or affection of breathing: neither were we sensible of his having had any cold shiverings.

The complaint had begun on the nates and scrotum, and subsequently attacked other parts above mentioned. The nurse mentioned that at first there were a great number of small red pimples, about the size of pin-heads, in clusters. The back kept always free from any affection, and so did the other parts of the trunk above the navel, except some parts of the neck. A neighbouring medical man, who had seen the child three or four days after the commencement of the attack, endeavoured to persuade the nurse that it was of a venereal nature; and, on this supposition, ordered remedies accordingly. By the confession of the nurse, however, none of them had been used, except one or two powders, which appeared to me, from those left, to have been calomel. Previous to the commencement of this complaint, the child had got no medicine whatever; nor could any cause be assigned for it, except his wearing woollen clothes at the nates for the purpose of keeping him dry, clean, and warm. Those clothes, I was disposed, from subsequent experience of the nurse, to agree with the infant's friends, had been allowed to answer any purposes but

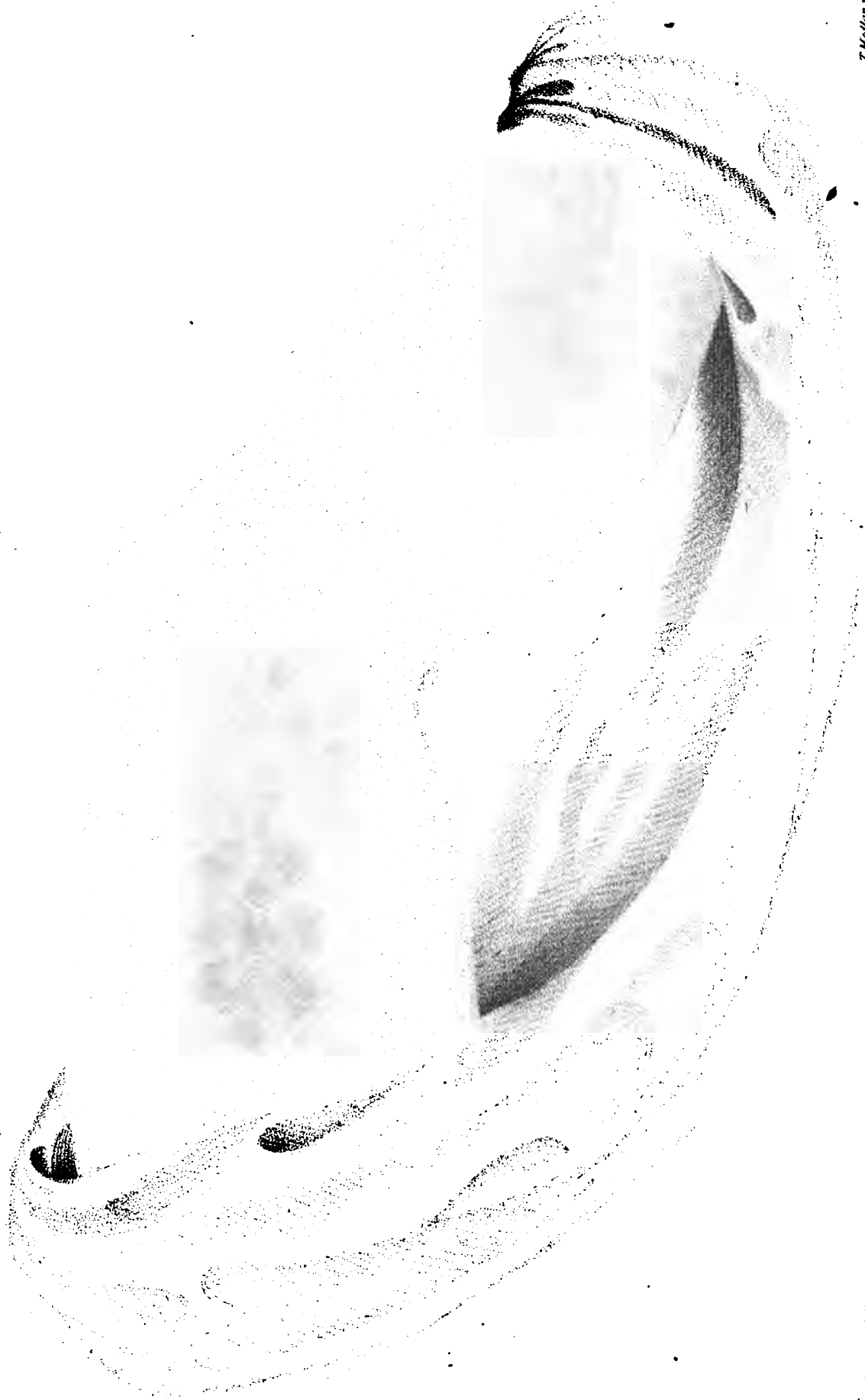
these ; nor was I disposed to contradict them, when they assigned want of cleanliness as the cause of the complaint.

I directed the infant to be bathed, and thoroughly cleansed twice a day in tepid milk and water, and to have the parts frequently anointed with the *linim. aquæ calcis*. Chiefly on account of the state of the bowels, I also ordered a powder containing one-third of a grain of calomel to be given every night and morning, cautioning the nurse against exposing the infant to cold. This mode of treatment was attended with the best effects; for by the 27th of the month, the child's skin had got perfectly well, and the state of the bowels was healthy. In some weeks after, however, the infant was liable to partial relapses of the affection of the skin, as well as of the disordered state of the bowels. But these relapses always appeared to me to be the consequence of imprudent exposure to the cold air; and they soon yielded to the mode of treatment at first adopted.

From the favourable report of Dr. Mitchell, as to the use of sulphureous tepid baths, analogy would suggest a trial of them in those cases of *Hydrargyria* where the desquamatory stage is severe. The *hepar sulphuris*, that physician observes, communicates to the water a soft, unctuous, and cleansing quality, and is, therefore, indicated when the surface is raw, painful, and inflamed. Such baths prepare the skin, beside, for the application of unctuous substances; and of these, the *linimentum aquæ calcis*, and the zinc ointment, are entitled to a preference.

THE END.

Hydroxypropyl - Hates.

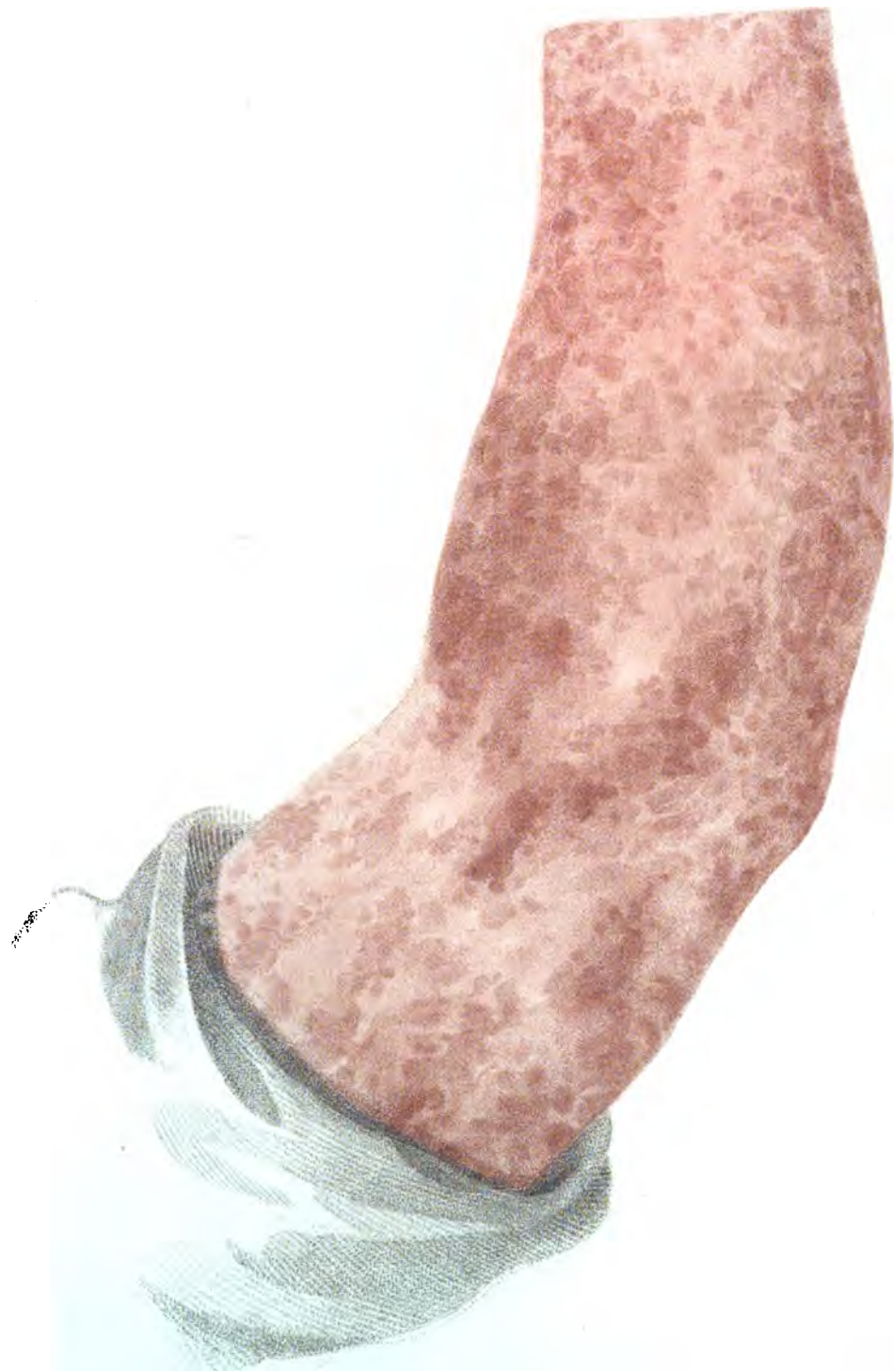


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1st Chamber del.

Hydrocorys simplex - Fibrilis



Hydrargyria . Nodigna.





